

Due Care Plan
Conducted Pursuant to Section 20107a
of 1994 PA 451, Part 201, as amended

0 and 2755 Tooley Road
Howell Township, Michigan

Howell Township

July 22, 2025

ASTI ENVIRONMENTAL



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Prepared For:

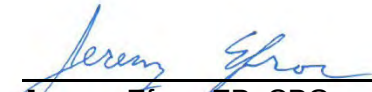
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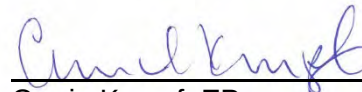
ASTI Project No. A24-1988.01

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**DUE CARE PLAN
0 AND 2755 TOOLEY ROAD
HOWELL TOWNSHIP, MICHIGAN
JULY 22, 2025**

1.0 INTRODUCTION

ASTI Environmental (ASTI) was retained by Howell Township to prepare this Due Care Plan (DCP) for the property located at 0 and 2755 Tooley Road in Howell Township, Livingston County, Michigan (Subject Property). The Subject Property is owned by Howell Township and consists of approximately 136 acres of land on two parcels (Parcel IDs: 4706-21-200-19 [2755 Tooley Road] and 4706-22-100-001 [0 Tooley Road]). A Site Location Map is provided as Figure 1. This DCP is based on the results of the following environmental investigations/reports completed by ASTI for the Subject Property:

1. *Phase I Environmental Site Assessment (ESA)*, 0 and 2990 Tooley Road, Howell Township, Michigan dated February 5, 2025.
2. *Phase I Environmental Site Assessment (ESA)*, 2755 Tooley Road, Howell Township, Michigan dated February 6, 2025.
3. Limited Phase II ESA report, 0, 2755, 2990 Tooley Road & 0 Bowen Road, Howell Township, Michigan dated June 20, 2025

The source of soil contamination at the Subject Property is likely from soil fill from an unknown source on 2755 Tooley Road and the source of contaminated groundwater is also unknown but may have been from biosolids applied to the surface on 0 Tooley Road.

This DCP addresses the Michigan Department of Environment, Great Lakes, and Energy (EGLE) obligations under Section 20107a(1)(a-f) of Part 201 of the Natural Resources and Environmental Protection Act (NREPA) 451 of 1994, as amended (Part 201). Those obligations include the following:

- a. Undertake measures as are necessary to prevent exacerbation of the existing contamination.
- b. Exercise due care by undertaking response activities necessary to mitigate unacceptable exposure to hazardous substances, mitigate fire and explosion hazards due to hazardous substances, and allow for the intended use of the facility in a manner that protects the public health and safety.

- c. Take reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the consequences that foreseeably could result from those acts or omissions.
- d. Provide reasonable cooperation, assistance, and access to the persons that are authorized to conduct response activities at the facility, including the cooperation and access necessary for the installation, integrity, operation, and maintenance of any complete or partial response activity at the facility. Nothing in this subdivision shall be interpreted to provide any right of access not expressly authorized by law, including access authorized pursuant to a warrant or a court order, or to preclude access allowed to a voluntary agreement.
- e. Comply with any land use or resources use restrictions established or relied on in connection with the response activities at the facility.
- f. Not impede the effectiveness or integrity of any land use or resource use restriction employed at the facility in connection with response activities.

2.0 DETAILED CHARACTERISTICS OF SUBJECT PROPERTY USE

The Subject Property is comprised of approximately 136 acres of land that is largely developed for agriculture but contains portions of land that are undeveloped. In addition, the south branch of the Shiawassee River traverses the central-eastern portion of 0 Tooley Road in a north-south orientation. The Subject Property is located on the east and west sides of Tooley Road and 0.16 to 0.25 miles north of Bowen Road in Howell Township, Sections 21 and 22 in Township 3 North and Range 4 East in Michigan. The location of the Subject Property is shown on the Site Location Map provided as Figure 1.

2.1 Subject Property Background

The southeast portion of 2755 Tooley Road contained a small farmhouse, barn, silo, and root cellar comprising a former small farm compound from at least 1907 until 1963. A small, 500-gallon gasoline underground storage tank (UST) used for fueling farm equipment was located adjacent to the farmhouse. Difco Laboratories purchased the property to operate a small diagnostic research laboratory from 1963 until 1988. Several of the former buildings associated with the former farm and laboratory were subsequently razed; however, some dilapidated structures (storage sheds, root cellar, etc.) remain but have not been used since the late 1980s. Difco Laboratory's primary activity was the production of antibiotic-

impregnated paper disks in spring-loaded plastic dispensing cartridges. The remainder of the 2755 Tooley Road portion of the Subject Property has been farmland since at least 1907.

The 0 Tooley Road portion of the Subject Property has primarily been used as farmland since at least 1937. A sewer pump station was constructed near the southern boundary of Parcel 4706-22-100-001 by the late 2000s.

2.2 Current and Proposed Uses of the Subject Property

The Subject Property is used for agricultural purposes. Howell Township intends to develop the Subject Property with walking trails and a future township hall.

2.3 Existing Infrastructure Features

No structures are present at the Subject Property. Potable water, sewerage, and storm water utilities are available to the Subject Property from Howell Township. Electrical services are available to the area of the Subject Property through DTE Energy and natural gas services are available through Consumers Energy.

2.4 Proposed Construction Activities

Howell Township intends to construct a building to be used as a township hall. No plans for the building were finalized at the time of this Due Care Plan.

3.0 HAZARDOUS SUBSTANCE INFORMATION

The following subsections provide a summary of previous environmental investigations, areas of known contamination, an evaluation of exposure pathways, and an evaluation of known or potential exposures at the Subject Property.

3.1 Environmental Investigations

Environmental reports/assessments completed by ASTI on the Subject Property consist of the following:

- *Phase I Environmental Site Assessment*, 160.65-Acre Property, Parcel 4706-22-100-001 and 4706-15-300-002, Howell Township, Michigan, February 5, 2025
- *Phase I Environmental Site Assessment*, 55.27-Acre Property, Parcel 4706-20-200-019, Howell Township, Michigan, February 6, 2025

- Limited Phase II Environmental Site Assessment report, 0,2755, and 2990 Tooley Road & 0 Bowen Road, Howell Township, Michigan, June 20, 2025

Summaries of these investigations are provided in the following subsections.

3.1.1 Phase I Environmental Site Assessments, February 5 and 6, 2025

ASTI conducted Phase I ESAs of the Subject Property and one northern adjoining parcel that were completed on February 5 and February 6, 2025. The Phase I ESAs were conducted in accordance with United States Environmental Protection Agency (US EPA) Standards and Practices for All Appropriate Inquiries (AAI, 40 CFR Part 312) and the *American Society for Testing and Materials* (ASTM) Practice E1527-21.

The Phase I ESAs included (1) a site inspection on December 17, 2024, (2) interviews with knowledgeable site contacts, (3) review of pertinent Michigan Department of Environment, Great Lakes, and Energy (EGLE), Howell Township, and Livingston County records, (4) acquisition and review of a federal and state database search, and (5) review of historical aerial photographs, topographic maps, prior environmental investigations, and city directories.

The following recognized environmental conditions (RECs) were identified with respect to the Subject Property (the RECs listed in this DCP are numbered differently than in the Phase I ESAs for ease of describing the scope of work completed, but the ordering of the RECs matches the Phase I ESAs):

2755 Tooley Road, Parcel ID 4706-21-200-019

- REC 1. Environmental investigations by ENKON in 1992 identified arsenic and selenium in soil samples exceeding the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Part 201 Generic Residential Cleanup Criteria (GRCC) in multiple areas, including a septic system leach field, a drainage ditch, and a laboratory waste disposal pit. Additionally, groundwater sample MW-1 contained arsenic and lead exceeding GRCC near a stream that fed a former stormwater pond. While subsequent investigations by SEI in 1994 concluded that these impacts were within background levels or non-leaching, the presence of historical exceedances in soil and groundwater raises concerns regarding residual contamination.

- REC 2. SEI identified 20 potential waste disposal pits across six areas of the former lab, with approximately 6,600 cubic yards of impacted soil and waste material excavated and disposed of at a landfill. While confirmatory sampling concluded that volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PNAs), and metal concentrations were below GRCC, the historical disposal of laboratory waste and significant excavation activities present potential subsurface contamination risks that warrant further evaluation.
- REC 3. Investigations by Radian in 1999 identified sediment contamination in the stormwater retention pond and the associated drainage ditch. Additionally, groundwater samples MW-2, MW-3, and MW-4 contained lead concentrations (5 to 49 parts per billion [ppb]) exceeding GRCC for drinking water. Follow-up sampling in 2004 confirmed lead exceedances in MW-3, but later low-flow sampling techniques in 2005 did not detect lead. While EGLE acknowledged the possibility that previous detections were anomalies, the historical presence of lead contamination in groundwater and sediment remains a REC due to the potential for residual impact.
- REC 4. Biosolids appear to have been applied to the Subject Property as an agricultural nutrient booster. The biosolids were applied by Biotech Agronomics, Inc. and they were sourced from the Pontiac [wastewater treatment plant] WWTP. The obtained biosolids application notification was issued on May 29, 2014. The biosolids were tested for arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, zinc, nitrogen, phosphorus, and potassium. The biosolids do not appear to have been tested for PFAS, which is now known to be spread through biosolids from WWTPs.

0 and 2990 Tooley Road, Parcel IDs 4706-22-100-001 and 4706-15-300-002

- REC 5. The South Branch Shiawassee River transects the eastern portion of the Subject Property. This segment of the river is part of an 8-mile Super Fund Site caused by polychlorinated biphenyls (PCBs) contamination from historical discharges at the upstream former Cast Forge Company. Sediment samples collected from the Subject Property (T-168 to T-175 on Parcel -002 and T-186 to T-194 on Parcel -001) revealed PCBs concentrations below the Record-of-Decision cleanup threshold of 5 milligrams per kilogram (mg/kg), with the highest detected concentration being 0.692 mg/kg. While current levels meet regulatory

standards, continued monitoring was recommended due to the site's location within the contamination zone. Institutional controls, including land-use restrictions and fish consumption advisories, appear to be in effect for the contaminated zone. Soil disturbance or excavation in the contaminated zone may require regulatory review and adherence to safety protocols.

Additionally, PFAS have been more recently detected at the upstream source, so their presence in the watershed introduces further environmental concern.

- REC 6. Biosolids appear to have been applied to the Subject Property as an agricultural nutrient booster. The biosolids were applied by Biotech Agronomics, Inc. and they were sourced from the Pontiac WWTP. The obtained biosolids application notification was issued on May 29, 2014. The biosolids were tested for arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, zinc, nitrogen, phosphorus, and potassium. The biosolids do not appear to have been tested for PFAS, which is now known to be spread through biosolids from WWTPs.
- REC 7. The Subject Property was initially included in a BEA from 2004 that covered a 207-acre site formerly operated by Difco Lab. The report was revised to a smaller fraction that is approximately 8.6 acres. The Subject Property is not included in the revised area; however, no sampling was conducted on the Subject Property to distinguish or verify its condition.
- REC 8. ASTI observed three relatively small dump sites at the edge of the farmland approaching the South Branch Shiawassee River. The location is west of the former farm on Tooley Road, so the area appears to have been a farm dump. Two of the dumps were approximately 30-square-feet in size. Within the dumps and in the immediate area, ASTI observed three deteriorated vehicles and three 55-gallon metal drums. All observed drums were empty, but the drums were old and rusty, so there is potential for a related leak. Approximately 15 smaller containers, ranging in size from less than one quart to over 10 gallons, were observed. Some of the smaller containers appeared to have been related to paint and motor oil storage while others were for food. General rubbish included appliances and other miscellaneous items. Some of the observed items were sunken into the ground, suggesting they had been discarded a long time ago or

intentionally buried. Based on observations, there is potential for a release at the dumps.

3.1.2 Limited Phase II Environmental Site Assessment report, June 20, 2025

ASTI conducted a Limited Phase II ESA of the Subject Property and two adjoining sites, one to the north (2990 Tooley Road) and one to the west (0 Bowen Road) on May 8 and 9, 2025. Only the data collected on the Subject Property, apart from an incremental sample that extended onto 2990 Tooley Road, are discussed further in this DCP.

The Limited Phase II ESA was conducted to identify whether environmental impacts had occurred to the Subject Property from the RECs described above.

On May 8 and 9, 2025, ASTI oversaw the completion of nine soil borings (SB-1 through SB-6, MW-7 through MW-9) at the Subject Property. The soil borings were advanced to various depths between 10 and 20 feet below ground surface (bgs) using a direct-push Geoprobe® drill rig. Groundwater was encountered in soil borings SB-3, SB-4, SB-6, MW-7, MW-8, and MW-9. Temporary monitoring wells were installed, and one groundwater sample was collected from each well except the temporary well at SB-6, which did not produce a sufficient volume of groundwater to sample. Additionally, on May 12 and 13, 2025, ASTI collected two incremental samples from two decision units (DUs) using Incremental Sampling Methodology (ISM) within the agricultural fields across the two Subject Property parcels and part of the northern adjoining parcel. On May 13, 2025, ASTI also oversaw the completion of two test trenches for the purpose of investigating potential waste disposal pits created by former Difco Lab operations and collected samples from the bottom of the trenches. A Sample Location Map is provided as Figure 2.

Boring/sample IDs, boring/sample locations, and depths were as follows:

Boring/Sample ID	Boring/Sample Location	Depth of Boring (bgs)
DU-1	53 increments across the agricultural field at 2755 Tooley Road regarding placement of biosolids	1 foot
DU-2	52 increments across the agricultural field at 0 and 2990 Tooley Road regarding placement of biosolids	1 foot
SB-1	Southeast portion of former Difco lab area at 2755 Tooley Road regarding the septic system leach field	20 feet
SB-2	Southern portion of former Difco lab area at 2755 Tooley Road regarding the historical drainage ditch	20 feet

Boring/Sample ID	Boring/Sample Location	Depth of Boring (bgs)
SB-3	Along the southern property boundary south of the former Difco lab area at 2755 Tooley Road along the stormwater detention ditch regarding historical impacts	10 feet
SB-4	East of the former Difco lab area at 2755 Tooley Road adjacent to the stormwater detention pond regarding historical impacts	10 feet
SB-5	North of the former Difco lab area at 2755 Tooley Road regarding historical waste disposal pits	15 feet
SB-6	Southern portion of the agricultural field at 2755 Tooley Road regarding placement of biosolids and historical impacts	20 feet
MW-7	Northern portion of the agricultural field at 2755 Tooley Road regarding placement of biosolids	20 feet
MW-8	Southeast portion of 0 Tooley Road, adjacent to the Shiawassee River regarding upstream historical PCBs and PFAS discharge. This location was as close to the river as ASTI could access due to flooding of the river.	5 feet
MW-9	Southern portion of 0 Tooley Road regarding placement of biosolids	10 feet
Trench-1	Southwest corner of the former Difco lab area at the bottom of the trench regarding waste disposal pits	5 feet
Trench-2	Southwest corner of the former Difco lab area at the bottom of the trench regarding waste disposal pits	5 feet

Sampling Procedures

ISM Sampling

ISM Sampling was conducted in accordance with EGLE's *Incremental Sampling Methodology and Applications* document, dated January 2018. Equal volumes of soil were collected from each increment using a stainless-steel slide-hammer ground probe. Multiple increments comprised one sample from one DU. The samples were collected from the surface to 1-foot bgs. Each increment was transferred from the probe directly into a dedicated bucket lined with a plastic bag. Triplicate samples were collected from DU-3 (T-1 and T-2) for quality assurance/quality control (QA/QC) purposes. Sampling equipment was decontaminated with an Alconox® wash and clean water rinse between DUs and between the parent and triplicate samples to minimize the risk of cross contamination.

These samples were subsequently placed on ice and submitted to Merit Laboratories Inc. (Merit) in East Lansing, Michigan under standard chain-of-custody procedures, and analyses were conducted using ISM laboratory procedures. The soil samples were analyzed for arsenic, cadmium, lead, selenium, and mercury using US EPA Methods 6020A and 7471, and polynuclear aromatic hydrocarbons (PNAs) using US EPA Method 8270D.

Discrete Soil and Groundwater Sampling

For discrete soil samples, soil was extracted from the ground using the drill rig in pre-cleaned, 5-foot-long, acetate liners. Soil encountered during field activities was identified by ASTI's field personnel, examined for visual and/or olfactory evidence of impact, and screened for total VOCs using a photoionization detector (PID), with notes recorded in a field logbook. Prior to sampling, the PID was calibrated to manufacturer specifications using 100 parts per million (ppm) isobutylene calibration gas. All down-hole equipment was decontaminated using an Alconox® wash and clean water rinse prior to and between borings to minimize the risk of cross contamination of the samples.

ASTI collected one or two soil samples from each soil boring. The soil samples were collected into laboratory-certified clean, unpreserved 4-ounce glass jars and 40-milliliter (mL) glass vials preserved with methanol, which were subsequently placed on ice and submitted to Merit under standard chain-of-custody procedures.

A total of five temporary monitoring wells were installed at the Subject Property. The wells were constructed using a one-inch diameter, five-foot-long, 10-slot polyvinyl chloride (PVC) screen threaded onto a one-inch diameter PVC riser. The temporary well at SB-6 did not produce sufficient groundwater to collect a sample. From the remaining temporary wells, groundwater was sampled using a peristaltic pump set at a flow rate of approximately 200 mL/minute. The groundwater samples were collected into two 40-mL glass vials preserved with hydrochloric acid, one 250-mL plastic bottle preserved with nitric acid, two unpreserved 15-mL centrifuge tubes, and an unpreserved 1-liter amber glass jar. The groundwater samples were also placed on ice and submitted to Merit under standard chain-of-custody procedures.

The soil and groundwater samples were analyzed for some combination of the following: VOCs by US EPA Method 8260C, PCBs by US EPA Method E608.3, PNAs by US EPA Method 8270D, PFAS by ASTM Method D7979-19M, and the Michigan 10 metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc) by US EPA Method 6020A and 7471B (soil only) or 7470A (groundwater only).

Test Trenches

ASTI oversaw the completion of two test trenches for the purpose of investigating potential waste disposal pits created by former Difco Lab operations. The two trenches were completed with an excavator operated by Republic Services in locations measured and staked out by ASTI. The trenches were excavated to a depth of 5 feet and were each approximately 2-feet wide by 100-feet long. One soil sample was collected from the bottom of each trench (Trench-1 and Trench-2). Trench soil samples were analyzed for VOCs, PNAs, and Michigan 10 metals using the US EPA methods listed above. Following sampling, the trenches were backfilled and returned to grade by Republic Services.

For QA/QC purposes, two duplicate soil samples were collected. DUP-1S was collected from SB-4 (3.5-4'), and DUP-2S was collected from SB-5 (4-5'). One duplicate groundwater sample, DUP-1GW, was collected from MW-7. In addition, a methanol blank was maintained with the soil and groundwater samples during sampling and transport.

Sample depths, depth rationale, and analyses are provided in the following table.

Boring	Sample Matrix	Sample Depth (feet bgs)	Rationale for sample depth	Analysis
SB-1	Soil	4-4.5	Shallow soils in septic system leach field	VOCs, PNAs, Michigan 10 metals
	Soil	14-15	Deeper soils beneath septic system leach field	VOCs, PNAs, Michigan 10 metals
SB-2	Soil	2-2.5	Shallow soils in historical drainage ditch	VOCs, PNAs, Michigan 10 metals
	Soil	13-14	Deeper soils beneath historical drainage ditch	VOCs, PNAs, Michigan 10 metals
SB-3	Soil	3.5-4	Above the water table and historical lead impacts	Lead
SB-4	Soil	3.5-4.5	Within fill soils above the water table and historical lead impacts	Lead
	Groundwater	Screened at 5-10	Historical lead impacts	Lead
SB-5	Soil	4-5	Bottom of fill soils above native sand	VOCs, PNAs, Michigan 10 metals

Boring	Sample Matrix	Sample Depth (feet bgs)	Rationale for sample depth	Analysis
Trench-1	Soil	6'	Soil sample in the trench floor (no debris observed)	VOCs, PNAs, Michigan 10 metals
Trench-2	Soil	6'	Soil sample in the trench floor (no debris observed)	VOCs, PNAs, Michigan 10 metals
MW-7	Groundwater	Screened at 15-20	Intersection of water table	PNAs, PFAS, arsenic, cadmium, lead, selenium, mercury
MW-8	Groundwater	Screened at 0-5	Intersection of water table	PCBs, PFAS
MW-9	Groundwater	Screened at 5-10	Intersection of water table	PNAs, PFAS, arsenic, cadmium, lead, selenium, mercury

The EGLE Part 201 GRCC used for comparison to the soil analytical data are the drinking water protection (DWP), groundwater surface water interface protection (GSIP), direct contact (DC), finite source volatile soil inhalation (VSIC), soil volatilization to indoor air inhalation (SVIAI), and particulate soil inhalation (PSI). The groundwater samples were compared to the GRCC for drinking water (DW), groundwater surface water interface (GSI), and groundwater volatilization to indoor air inhalation (GVIAI).

The soil and groundwater analytical results were also compared to EGLE's residential volatilization to indoor air pathway (VIAP) screening levels (SLs), dated February 26, 2024.

Analytical Results

Soil Analytical

Table 1 presents the laboratory analytical results for the soil samples in comparison to the EGLE Part 201 GRCC and residential VIAP SLs. Table 2 presents the laboratory analytical results for the ISM soil samples in comparison to the EGLE Part 201 GRCC and residential VIAP SLs.

Metals

The laboratory analytical results reported arsenic in soil sample SB-5 (4-5') at a concentration exceeding the EGLE Part 201 GRCC for DWP and GSIP. Note that the arsenic concentration in SB-5 additionally exceeded the GRCC for DC. However, as described below in Section

3.6.6, ASTI calculated a new DC concentration for the Subject Property based on a more accurate exposure scenario for the Subject Property, and the calculated DC for arsenic was greater than the concentration at SB-5 (4-5').

Arsenic also exceeded the GRCC for DWP and GSIP in samples SB-1 (4-4.5'), SB-2 (2-2.5'), Trench-1 (5'), and Trench-2 (5'). However, these four samples were collected in native and/or natural sand or clay soils. The Subject Property is located within the Saginaw Glacial Lobe. Following Part 324.20101(e)(ii) of NREPA Act 451 of 1994 for use of regional background, the regional background concentration for arsenic in sand and clay in the Saginaw Glacial Lobe from the 2015 Michigan Background Soil Survey is 17,000 micrograms per kilogram ($\mu\text{g}/\text{kg}$) and 17,100 $\mu\text{g}/\text{kg}$, respectively. The highest concentration of arsenic reported was 7,350 $\mu\text{g}/\text{kg}$ in soil sample SB-1 (4-4.5'). Because the arsenic concentrations in samples SB-1 (4-4.5'), SB-2 (2-2.5'), Trench 1 (5'), and Trench 2 (5') are less than the regional background concentration, the concentrations of arsenic do not represent exceedances of the GRCC nor evidence of a release.

Selenium was detected at concentrations exceeding the GRCC for GSIP in samples SB-2 (13-14') and Trench-1 (5'). However, these samples were also collected in native sand or clay. The Saginaw Glacial Lobe regional background concentration for selenium in sand and clay is 1,100 $\mu\text{g}/\text{kg}$. The highest concentration of selenium reported was 562 $\mu\text{g}/\text{kg}$ in sample Trench-1 (5'). Because the selenium concentrations in these samples are less than the regional background concentration, these concentrations do not represent exceedances of the GRCC nor evidence of a selenium release.

Other metals were detected in the soil samples, but at concentrations less than the GRCC.

PNA and VOCs

No PNAs or VOCs were detected in the soil samples at concentrations at or exceeding the laboratory reporting limits.

ISM Analytical Results

The laboratory reported arsenic and cadmium in each Incremental sample, but at concentrations less than the GRCC. No cadmium, mercury, selenium, or PNAs were detected at or exceeding the laboratory reporting limits in the incremental samples.

Groundwater Analytical

Table 3 presents the laboratory analytical results for the groundwater samples in comparison to the EGLE Part 201 GRCC and residential VIAP SLs.

Metals

Multiple metals were detected in the groundwater samples, but the reported concentrations do not exceed the GRCC or VIAP SLs.

PNAs, VOCs, and PCBs

No PNAs, VOCs, or PCBs were detected in the groundwater samples at or exceeding the laboratory reporting limits.

PFAS

The laboratory reported the PFAS compound perfluorobutane sulfonic acid (PFBS) in groundwater sample MW-9 at a concentration exceeding the GRCC for DWP. Multiple other PFAS were detected in the MW-9 groundwater sample, but the concentrations did not exceed the GRCC.

Quality Assurance/Quality Control

The duplicate soil and groundwater samples were within acceptable ranges of the associated parent samples. No VOCs were reported in the methanol blank at concentrations exceeding the laboratory reporting limits. The relative standard deviation (RSD) between the ISM parent samples and replicates ranged from 2.3 percent to 6.8 percent, for analytes detected exceeding laboratory reporting limits, which is less than 30 percent, which EGLE indicates is generally precise enough to make decisions based on the data.

The laboratory analytical reports and chain-of-custody documentation are provided in Attachment A.

The soil sample analytical results exceeding EGLE GRCC are summarized in the following table.

Sample Identification	Chemical Compound	CAS Number	Exceeded GRCC (µg/kg)	Analytical Result (µg/kg)
SB-5 (4-5')	Arsenic	7440382	DWP – 4,600 GSIP – 4,600 SDBL – 5,800	9,040

DWP = Drinking Water Protection criterion

GSIP = Groundwater Surface Water Interface Protection criterion

SDBL = Statewide Default Background Level (if the SDBL exceeds a GRCC, the GRCC becomes the SDBL)

The groundwater analytical results exceeding the EGLE GRCC are summarized in the following table.

Sample Identification	Chemical Compound	CAS Number	Exceeded GRCC (µg/L)	Analytical Result (µg/L)
MW-9	Perfluorobutane sulfonic acid (PFBS)	375735	DW – 420	460

DW = Drinking Water criteria

Soil and groundwater analytical results that exceed the GRCC are depicted on Figure 3 and Figure 4, respectively. Because contaminants in soil and groundwater are present on the Subject Property at concentrations exceeding EGLE Part 201 GRCC, the Subject Property is a “facility” as defined in Part 201.

3.2 Known Contamination Above Residential Criteria

The 2007 and 2008 subsurface investigations identified concentrations of arsenic in soil and PFBS in groundwater that exceed the GRCC.

3.3 Abandoned or Discarded Containers

ASTI did not identify any abandoned or discarded containers at the Subject Property.

3.4 Geology and Hydrogeology

The general subsurface lithology encountered in the soil borings beneath topsoil (where present) generally consisted of silty clay, silty sand, or clayey sand strata extending to the explored depth of the borings, with the maximum explored depth of 20 feet bgs in soil borings SB-6 and MW-7. Soil fill was encountered in soil borings SB-4 and SB-5 (advanced in the area of the former Difco laboratory) from the surface to 4 feet and 5 feet bgs, respectively. The soil fill in SB-4 and SB-5 was a silty sand or silty clay and contained trace (less than 5 percent) amounts of metal and/or brick. The soil fill in SB-4 was underlain by a clayey sand stratum to the explored depth of 10 feet bgs. The soil fill in SB-5 was underlain by a silty sand

stratum to the explored depth of 15 feet bgs. No other staining or odors were noted in the soil borings, and no VOC readings were detected on the PID during screening of the soil cores.

The general subsurface lithology encountered in the test trenches consisted of a silty sand from the surface to a depth of 3.5 feet bgs that was underlain by a silty clay stratum to the explored depth of 5 feet bgs. Several boulders (0.5 to 1.5 feet in diameter) were observed at various depths throughout the trenches. No VOC readings, staining, odors, or non-natural materials were observed in soils assessed during trenching. Refer to the boring logs provided as Attachment B for further detail on the observed subsurface stratigraphy.

Groundwater was encountered in soil borings SB-3, SB-4, SB-6, MW-7 through MW-9. The depth to groundwater from the surface ranged from 1 foot bgs at MW-8 (approximately 140 feet west of the Shiawassee River, which was flooded at the time of the event) to approximately 17.5 to 18 feet bgs at SB-6 and MW-7 (the furthest borings to the west of the Shiawassee River). The groundwater flow direction was not evaluated as a part of this investigation but is assumed to flow to the east towards the Shiawassee River.

3.5 Hazardous Substance Concentrations, Fate, and Transport

Results of the sampling conducted at the Subject Property indicate that arsenic concentrations in soil and PFBS concentrations in groundwater exceed the EGLE Part 201 GRCC. The primary transport mechanism for arsenic in soil is leaching to groundwater or above ground transport by wind or construction. The primary transport mechanisms for PFBS in groundwater is advection, diffusion, and dispersion.

3.6 Exposure Pathway Evaluation

The analysis of potential human exposure pathways is based on the current conditions and the intended future use of the Subject Property. The Subject Property is currently used for agricultural purposes. Howell Township intends to construct walking trails and a new township hall. Because the property will be municipal land adjacent to residential properties, the intended land use of the Subject Property falls under the residential land use category. The following subsections provide an evaluation of exposure pathways and applicable criteria.

3.6.1 Drinking Water

Groundwater was encountered at the Subject Property, and therefore, the drinking water pathway is relevant. In addition, arsenic and PFBS were reported in soil and groundwater, respectively, at concentrations exceeding the GRCC for DWP/DW. However, Howell

Township will be using municipal water for the proposed township hall building, and therefore, the drinking water pathway will not be complete and will not pose an unacceptable exposure risk to receptors at the Subject Property.

3.6.2 Groundwater Surface Water Interface

Arsenic was reported in soil at a concentration exceeding the GRCC for GSIP. In addition, the Shiawassee River is present on the eastern portion of the Subject Property. Therefore, the ground water surface water interface pathway is complete. However, the groundwater surface water interface pathway is not a human exposure pathway and therefore is not relevant for due care except for preventing exacerbation of existing contamination as described in section 5.1.

3.6.3 Volatilization to Indoor Air

Howell Township will construct a new Township Hall building on the Subject Property, and therefore, the VIAP will be complete in the future. However, no contaminants were reported at the Subject Property at concentrations exceeding the EGLE VIAP SLs, and therefore, the VIAP does not pose an unacceptable exposure risk to receptors at the Subject Property.

3.6.4 Volatilization to Ambient Air

The volatilization to ambient air pathway is complete for the Subject Property; however, no soil samples were reported with concentrations of compounds exceeding the GRCC for VSIC. Therefore, the volatilization to ambient air pathway does not pose an unacceptable exposure risk to receptors at the Subject Property.

3.6.5 Particulate Soil Inhalation

The particulate soil inhalation pathway is complete for the Subject Property; however, no soil samples were reported with concentrations of compounds exceeding the GRCC for PSI. Therefore, the particulate soil inhalation pathway does not pose an unacceptable exposure risk to receptors at the Subject Property.

3.6.6 Direct Contact

The direct contact exposure pathway is complete at the Subject Property. In addition, arsenic was detected in soil sample SB-5 (4-5') at a concentration exceeding the GRCC for direct contact. The exposure scenario for the Subject Property, which is used as a municipal park, more closely resembles a nonresidential exposure scenario than a residential exposure scenario. ASTI used the equation for determining the direct contact criteria (per R 299.20

proposed 2017 revision) for arsenic using residential assumptions except for the ingestion and dermal exposure frequencies. These assumptions were replaced with the nonresidential exposure frequencies to better reflect the Subject Property use for recreational purposes. The resulting site-specific direct contact criteria was calculated to be 11,868 µg/kg. This calculated criterion is greater than the arsenic concentrations identified in the soil samples, as the highest reported arsenic concentration was 9,040 µg/kg in SB-5 (4-5'). The assumptions for the site-specific direct contact criterion calculation for arsenic are shown on Table 4 – Calculation of Site-Specific Direct Contact Criteria for Recreational Usage. In addition, this soil sample was collected in sand, only trace amounts of inert non-natural materials were observed in this soil, and the arsenic concentration in SB-5 (4-5') is less than the regional background concentration for arsenic in sand in the Saginaw Glacial Lobe. Therefore, based on the use of the Subject Property, the concentration of arsenic detected in soil sample SB-5 (4-5') does not pose an unacceptable direct contact exposure risk to receptors at the Subject Property, and the direct contact exposure pathway does not pose an unacceptable exposure risk to receptors at the Subject Property. No response activities are necessary.

3.6.7 Potential Fire or Explosion Hazard

Based on site conditions encountered and analytical results, no flammability or explosivity hazards were identified in subsurface soil at the Subject Property.

4.0 PLAN FOR RESPONSE ACTIVITIES

This DCP is based on the proposed future use of the Subject Property as described in this report. If in the future the use of the Subject Property changes, this DCP must be re-evaluated and revised as appropriate in consideration of those changes. Based on the soil and groundwater sampling completed, the concentrations of compounds detected, and the intended use of the Subject Property, no response activities are necessary at this time.

5.0 EVALUATION AND DEMONSTRATION OF COMPLIANCE WITH SECTION 7A OBLIGATIONS

The following sections provide documentation that the proposed response activities and usage of the Subject Property will be in compliance with Section 7a obligations.

5.1 Exacerbation [Section 7a(1)(a)]

Soil and groundwater with concentrations exceeding the EGLE Part 201 GRCC have been identified on the Subject Property, and therefore, any soil or groundwater removed from the Subject Property should be disposed of at a municipal Type II landfill or other approved disposal facility unless further sampled and characterized to be not impacted. Copies of load tickets, bills of lading, or manifests will be retained by the owner for each shipment of soil or groundwater transported off the Subject Property for disposal. The proposed use of the Subject Property for agricultural land, undeveloped land with hiking trails, and a township hall are not expected to exacerbate the soil or groundwater impacts.

Prior to any further site development, construction plans will be reviewed by an environmental professional prior to commencement to confirm that work will not exacerbate existing conditions. Unless tested, all soil and groundwater on the Subject Property is considered to be impacted, and proper handling procedures shall be followed. To prevent exacerbation of soil and groundwater contamination, ASTI recommends the following:

- Soil removed from the ground that are not directly loaded into soil handling trucks for offsite disposal should be stockpiled on a minimum of 10 mil plastic sheeting and covered with plastic sheeting until the stockpile is removed from the Subject Property.
- Soil generated on the Subject Property as excavation spoils may be reused on the Subject Property but should be returned to the same location and depth from which it was removed.
- Soil and groundwater should not be moved to other locations on the Subject Property without first confirming that they are not impacted by conducting sampling and laboratory analysis.

5.2 Due Care Response Activities [Section 7a (1)(b)]

Based on the analytical results and intended use of the Subject Property, no response activities are proposed.

5.3 Reasonable Precautions [Section 7a(1)(c)]

Reasonable cooperation, assistance, and access will be provided to persons (i.e., including liable parties) that are authorized to conduct response activities at the facility, including the cooperation and access necessary for the installation, integrity, operation, and maintenance of any complete or partial response activity at the facility. Reasonable precautions will be taken against the reasonably foreseeable acts or omissions of a third party and the

consequences that could result from those acts or omissions. Third parties who intend to perform subsurface work that may encounter soil or groundwater on the Subject Property will be notified prior to beginning work. Those who may come in contact with soil or groundwater at the Subject Property will also be notified to prevent unacceptable exposures and allow for proper soil and groundwater management, as applicable. A contaminated soil and groundwater notification form is included as Attachment C.

Future construction plans should be reviewed by an environmental professional prior to commencement to confirm that work will not exacerbate existing conditions, and that all possible precautions are taken during activities with regard to foreseeable acts or omissions of a third party. If soil or groundwater is to be disposed of offsite, regulatory notification may also be required.

5.4 Reasonable Cooperation, Assistance, and Access [Section 7a(1)(d)]

Reasonable cooperation, assistance, and access will be provided to persons (i.e., including liable parties) that are authorized to conduct response activities at the facility, including the cooperation and access necessary for the installation, integrity, operation, and maintenance of any complete or partial response activity at the facility.

5.5 Use Restriction Compliance [Section 7a(1)(e)]

No land or resource use restrictions have been applied to the Subject Property.

5.6 Effectiveness or Integrity of Use Restrictions [Section 7a(1)(f)]

No land or resource use restrictions have been applied to the Subject Property.

FIGURES

- 1 Site Location Map
- 2 Sample Location Map
- 3 Soil Sample Analytical Results Map
- 4 Groundwater Sample Analytical Results Map



0 Bowen Rd., 2755 Tooley Rd,
and 0 & 2990 Tooley Rd

Howell Twp., MI

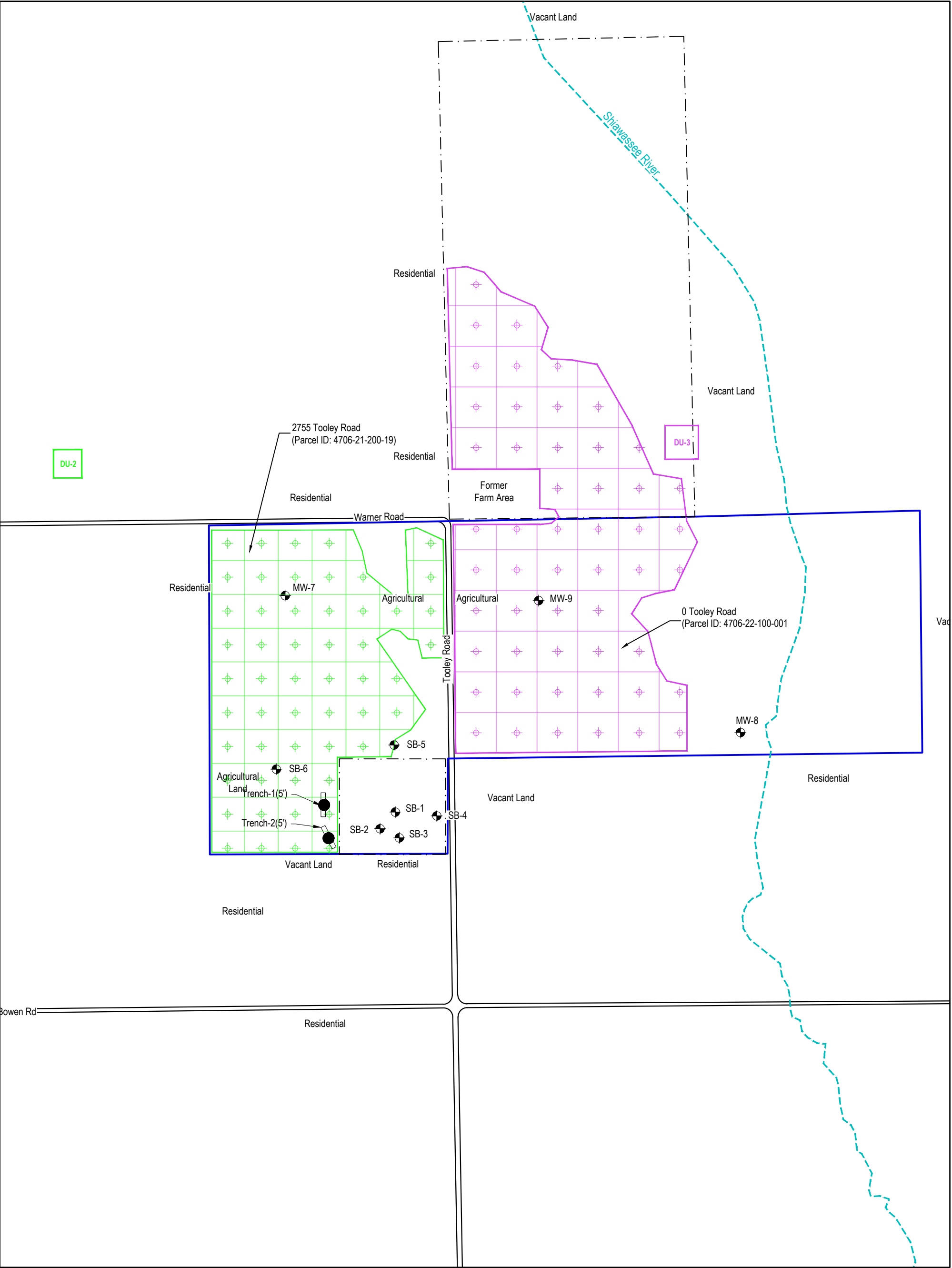
2,000 1,000 0 2,000
Feet



ASTi
ENVIRONMENTAL

Created for: Howell Township
Created by: RMH, June 20, 2025, ASTI Project A24-1988.01

Figure 1 - Site Location Map

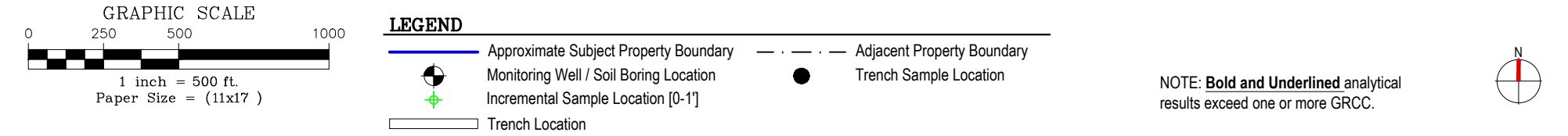
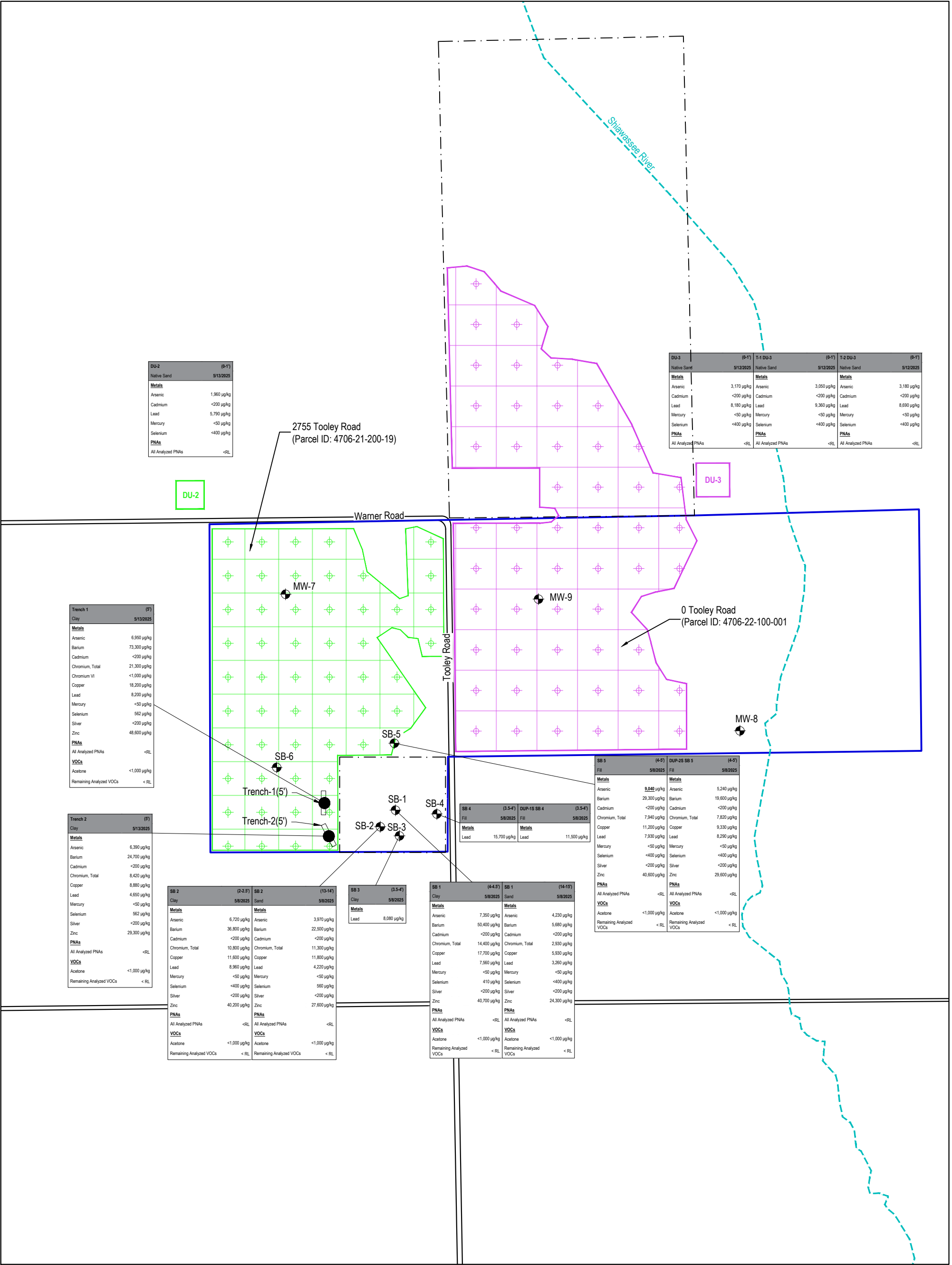


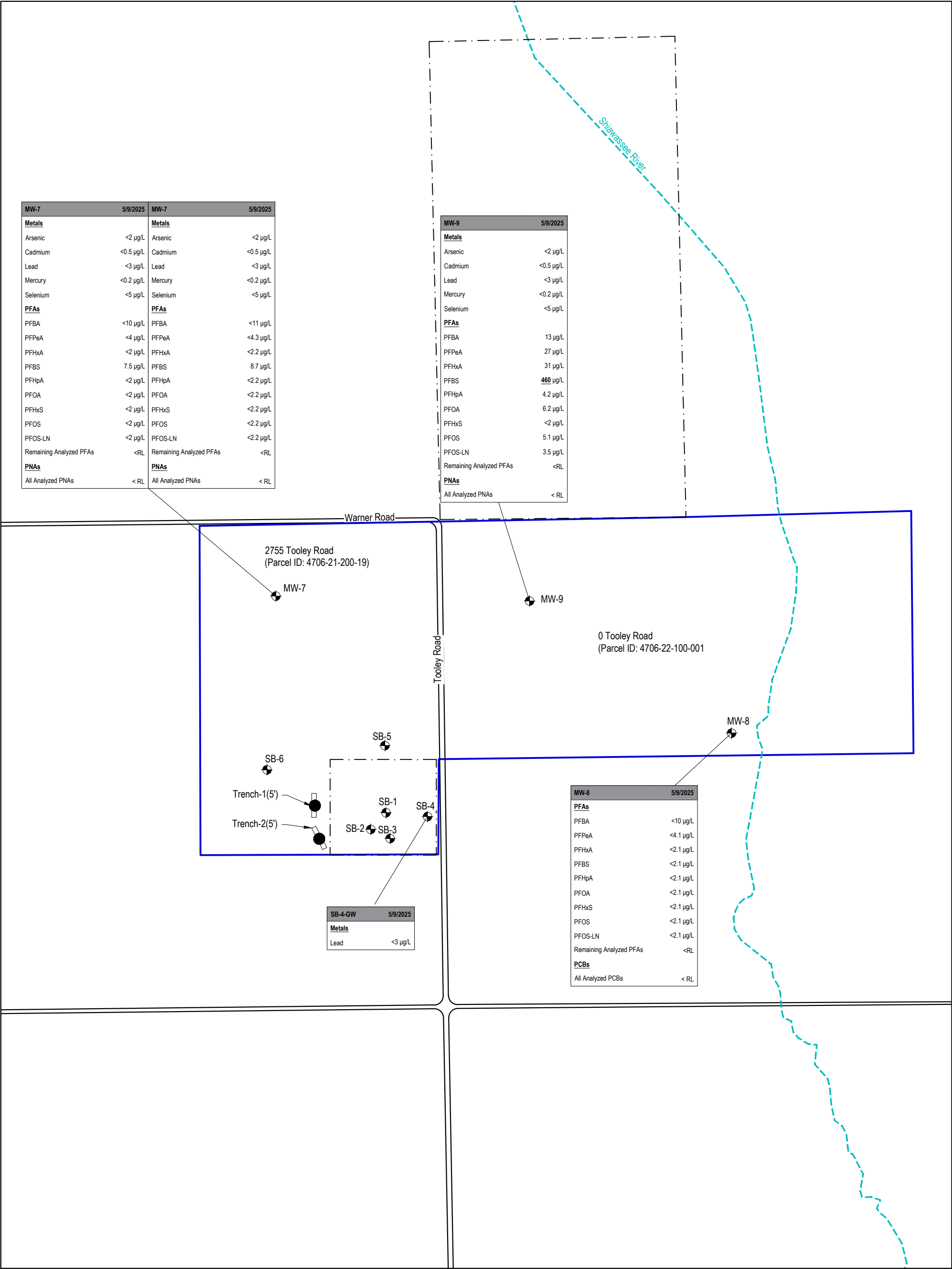
GRAPHIC SCALE

1 inch = 500 ft.
Paper Size = (11x17)

LEGEND

- Approximate Subject Property Boundary
- Adjacent Property Boundary
- Monitoring Well / Soil Boring Location
- Incremental Sample Location [0-1']
- Trench Sample Location
- Trench Location





GRAPHIC SCALE

0 250 500 1000

1 inch = 500 ft.
Paper Size = (11x17)

LEGEND

Approximate Subject Property Boundary

Monitoring Well / Soil Boring Location

Trench Location

Adjacent Property Boundary

Trench Sample Location

NOTE: **Bold and Underlined** analytical results exceed one or more GRCC.

TABLES

- 1 Soil Sample Analytical Results
- 2 Incremental Soil Sample Analytical Results
- 3 Groundwater Sample Analytical Results
- 4 Calculation of Site-Specific Direct Contact Criteria for Recreational Use

Table 1 - Soil Sample Analytical Results
0, 2755, and 2990 Tooley Road, and 0 Bowen Road, Howell Township, MI
ASTI Project No. A24-1988.01

Parameters	Statewide Default Background Levels* µg/kg	Michigan Background Soil Survey Saginaw Glacial Lobe Regional Background Concentration (Clay) µg/kg	Michigan Background Soil Survey Saginaw Glacial Lobe Regional Background Concentration (Sand) µg/kg	Residential Drinking Water Protection Criteria* µg/kg	Groundwater Surface Water Interface Protection Criteria* µg/kg	Residential Soil Volatilization to Indoor Air Inhalation Criteria* µg/kg	Residential Finite Source Volatile Soil Inhalation for 5 Meter Source Thickness* µg/kg	Residential Particulate Soil Inhalation Criteria* µg/kg	Site-Specific Direct Contact Criterion (SSDCC)*** (µg/kg)	Residential Direct Contact Criteria* µg/kg	Volatilization to Indoor Air Pathway Screening Levels** µg/kg	SB-1 (4-4.5') 5/8/2025 Clay µg/kg	SB-1 (14-15') 5/8/2025 Sand µg/kg	SB-2 (2-2.5') 5/8/2025 Clay µg/kg	SB-2 (13-14') 5/8/2025 Sand µg/kg	SB-3 (3.5-4') 5/8/2025 Clay µg/kg	SB-4 (3.5-4') 5/8/2025 Fill µg/kg	DUP-1S SB-4 (3.5-4') 5/8/2025 Fill µg/kg	SB-5 (4-5') 5/8/2025 Fill µg/kg	DUP-2S SB-5 (4-5') 5/8/2025 Fill µg/kg
Metals																				
Arsenic	5,800	17,100	17,000	4,600	4,600	NLV	NLV	720,000	11,868	7,600 / 11,868 ***	NA	7,350	4,230	6,720	3,970	~	~	~	9,040	5,240
Barium	75,000	172,000	66,200	1,300,000	(G)	NLV	NLV	330,000,000	NA	37,000,000	NA	50,400	5,680	36,800	22,500	~	~	~	29,300	19,600
Cadmium	1,200	2,000	2,000	6,000	(G,X)	NLV	NLV	1,700,000	NA	550,000	NA	<200	<200	<200	<200	~	~	~	<200	<200
Chromium, Total	18,000 (total)	43,500	19,700	1,000,000,000 (D)	(G,X)	NLV	NLV	330,000,000	NA	790,000,000	NA	14,400	2,930	10,800	11,300	~	~	~	7,940	7,820
Chromium VI	NA	NA	NA	30,000	3,300	NLV	NLV	260,000	NA	2,500,000	NA	~	~	~	~	~	~	~	~	~
Copper	32,000	32,200	20,200	5,800,000	(G)	NLV	NLV	130,000,000	NA	20,000,000	NA	17,700	5,930	11,600	11,800	~	~	~	11,200	9,330
Lead	21,000	38,900	18,000	700,000	(G,X)	NLV	NLV	100,000,000	NA	400,000	NA	7,560	3,260	8,960	4,220	8,080	15,700	11,500	7,930	8,290
Mercury	130	500	230	1,700	50 (M); 1.2	48,000	52,000	20,000,000	NA	160,000	22 (M)	<50	<50	<50	<50	~	~	~	<50	<50
Selenium	410	1,100	1,100	4,000	400	NLV	NLV	130,000,000	NA	2,600,000	NA	410	<400	<400	560	~	~	~	<400	<400
Silver	1,000	1,000	1,400	4,500	100 (M); 27	NLV	NLV	6,700,000	NA	2,500,000	NA	<200	<200	<200	<200	~	~	~	<200	<200
Zinc	47,000	91,900	73,600	2,400,000	(G)	NLV	NLV	ID	NA	170,000,000	NA	40,700	24,300	40,200	27,600	~	~	~	40,600	29,600
Polynuclear Aromatic Hydrocarbons (PNAs)																				
All Analyzed PNAs	NA	NA	NA	CS	CS	CS	CS	CS		CS	CS	<RL	<RL	<RL	<RL	~	~	~	<RL	<RL
Volatile Organic Compounds (VOCs)																				
Acetone	NA	NA	NA	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000		23,000,000	260,000	<1,000	<1,000	<1,000	<1,000	~	~	~	<1,000	<1,000
Remaining Analyzed VOCs	NA	NA	NA	CS	CS	CS	CS	CS		CS	CS	<RL	<RL	<RL	<RL	~	~	~	<RL	<RL

µg/kg - micrograms per kilogram
*Generic Residential Cleanup Criteria (GRCC) per R299.46, October 12, 2023
**Volatilization to Indoor Air Pathway Screening Levels (VIAP SLs) per VI Guidance Document, updated February 26, 2024
***Calculated Site-Specific Direct Contact Criterion for Arsenic in Soil (see Table 4)

Bold and highlighted results exceed one or more GRCC and/or the VIAP SL
Italicized results in blue text exceed the GRCC but were samples collected in native/natural sand or clay and were compared to and found to be below the regional background concentration

† Per 2005 Michigan Background Soil Survey, Updated 2015
~ Parameter not tested for at this location.

CS - Compound specific.
<RL - Not detected. Below the laboratory reporting limit.
NA - Not available.

NLV - Hazardous substance is not likely to volatilize under most conditions.
C - Value presented is a screening level based on the chemical-specific generic soil saturation concentration (Csat)
D - Calculated criterion exceeds 100%, hence it is reduced to 100% or 1.0e+9 ppb.
G - Groundwater Surface Water Interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water.

M - Calculated criterion is below the analytical target detection limit, therefore, the criterions defaults to the target detection limit.
X - The Groundwater Surface Water Interface (GSI) criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source.

Table 1 - Soil Sample Analytical Results
0, 2755, and 2990 Tooley Road, and 0 Bowen Road, Howell Township, MI
ASTI Project No. A24-1988.01

Parameters	Statewide Default Background Levels* µg/kg	Michigan Background Soil Survey Saginaw Glacial Lobe Regional Background Concentration (Clay) µg/kg	Michigan Background Soil Survey Saginaw Glacial Lobe Regional Background Concentration (Sand) µg/kg	Residential Drinking Water Protection Criteria* µg/kg	Groundwater Surface Water Interface Protection Criteria* µg/kg	Residential Soil Volatilization to Indoor Air Inhalation Criteria* µg/kg	Residential Finite Source Volatile Soil Inhalation for 5 Meter Source Thickness* µg/kg	Residential Particulate Soil Inhalation Criteria* µg/kg	Site-Specific Direct Contact Criterion (SSDCC)*** (µg/kg)	Residential Direct Contact Criteria* µg/kg	Volatilization to Indoor Air Pathway Screening Levels** µg/kg	SB-11 (2.5-3') 5/9/2025 Fill µg/kg	SB-12 (1-2') 5/9/2025 Sand µg/kg	SB-12 (3-3.5') 5/9/2025 Sand µg/kg	SB-13 (3.5-4') 5/9/2025 Sand µg/kg	SB-14 (3.5-4') 5/9/2025 Sand µg/kg	Methanol Blank 5/9/2024 µg/kg	Trench-1 (5') 5/13/2025 Clay µg/kg	Trench-2 (5') 5/13/2025 Clay µg/kg	Methanol Blank 5/13/2025 µg/kg
Metals																				
Arsenic	5,800	17,100	17,000	4,600	4,600	NLV	NLV	720,000	11,868	7,600 / 11,868 ***	NA	1,160	1,280	1,110	2,260	790	~	6,950	6,390	~
Barium	75,000	172,000	66,200	1,300,000	(G)	NLV	NLV	330,000,000	NA	37,000,000	NA	20,100	20,000	17,600	22,500	21,300	~	73,300	24,700	~
Cadmium	1,200	2,000	2,000	6,000	(G,X)	NLV	NLV	1,700,000	NA	550,000	NA	<200	<200	<200	<200	<200	~	<200	<200	~
Chromium, Total	18,000 (total)	43,500	19,700	1,000,000,000 (D)	(G,X)	NLV	NLV	330,000,000	NA	790,000,000	NA	3,150	2,690	5,640	5,970	2,510	~	21,300	8,420	~
Chromium VI	NA	NA	NA	30,000	3,300	NLV	NLV	260,000	NA	2,500,000	NA	~	~	~	~	~	~	<1,000	~	~
Copper	32,000	32,200	20,200	5,800,000	(G)	NLV	NLV	130,000,000	NA	20,000,000	NA	1,290	1,680	2,090	3,380	970	~	18,200	8,880	~
Lead	21,000	38,900	18,000	700,000	(G,X)	NLV	NLV	100,000,000	NA	400,000	NA	2,400	6,120	4,830	3,350	2,350	~	8,200	4,650	~
Mercury	130	500	230	1,700	50 (M); 1.2	48,000	52,000	20,000,000	NA	160,000	22 (M)	<50	<50	<50	<50	<50	~	<50	<50	~
Selenium	410	1,100	1,100	4,000	400	NLV	NLV	130,000,000	NA	2,600,000	NA	<400	<400	<400	<400	<400	~	562	<400	~
Silver	1,000	1,000	1,400	4,500	100 (M); 27	NLV	NLV	6,700,000	NA	2,500,000	NA	<200	<200	<200	<200	<200	~	<200	<200	~
Zinc	47,000	91,900	73,600	2,400,000	(G)	NLV	NLV	ID	NA	170,000,000	NA	6,420	12,000	10,300	12,300	10,400	~	48,600	29,300	~
Polynuclear Aromatic Hydrocarbons (PNAs)																				
All Analyzed PNAs	NA	NA	NA	CS	CS	CS	CS	CS		CS	CS	<RL	<RL	<RL	<RL	<RL	~	<RL	<RL	~
Volatile Organic Compounds (VOCs)																				
Acetone	NA	NA	NA	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000		23,000,000	260,000	<1,000	<1,000	<1,000	1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Remaining Analyzed VOCs	NA	NA	NA	CS	CS	CS	CS	CS		CS	CS	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL

µg/kg - micrograms per kilogram
*Generic Residential Cleanup Criteria (GRCC) per R299.46, October 12, 2023
**Volatilization to Indoor Air Pathway Screening Levels (VIAP SLs) per VI Guidance Document, updated February 26, 2024
***Calculated Site-Specific Direct Contact Criterion for Arsenic in Soil (see Table 4)

Bold and highlighted results exceed one or more GRCC and/or the VIAP SL
Italicized results in blue text exceed the GRCC but were samples collected in native/natural sand or clay and were compared to and found to be below the regional background concentration

† Per 2005 Michigan Background Soil Survey, Updated 2015
~ Parameter not tested for at this location.

CS - Compound specific.
<RL - Not detected. Below the laboratory reporting limit.
NA - Not available.

NLV - Hazardous substance is not likely to volatilize under most conditions.
C - Value presented is a screening level based on the chemical-specific generic soil saturation concentration (Csat)
D - Calculated criterion exceeds 100%, hence it is reduced to 100% or 1.0e+9 ppb.
G - Groundwater Surface Water Interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water.

M - Calculated criterion is below the analytical target detection limit, therefore, the criterions defaults to the target detection limit.
X - The Groundwater Surface Water Interface (GSI) criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source.

Table 2 - Incremental Soil Sample Analytical Results
0 and 2755 Tooley Road, Howell Township, MI
ASTI Project No. A24-1988.01

Parameters	Statewide Default Background Levels*	Residential Drinking Water Protection Criteria*	Groundwater Surface Water Interface Protection Criteria*	Residential Soil Volatilization to Indoor Air Inhalation Criteria*	Residential Finite Source Volatile Soil Inhalation for 5 Meter Source Thickness*	Residential Particulate Soil Inhalation Criteria*	Residential Direct Contact Criteria*	Residential Volatilization to Indoor Air Pathway Screening levels**	DU-2 (0-1') 5/13/2025 Native Sand µg/kg	DU-3 (0-1') 5/12/2025 Native Sand µg/kg	T-1 DU-3 (0-1') 5/12/2025 Native Sand µg/kg	T-2 DU-3 (0-1') 5/12/2025 Native Sand µg/kg
Metals												
Arsenic	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NA	1,960	3,170	3,050	3,180
Cadmium	1,200	6,000	(G,X)	NLV	NLV	1,700,000	550,000	NA	<200	<200	<200	<200
Lead	21,000	700,000	(G,X)	NLV	NLV	100,000,000	400,000	NA	5,790	8,180	9,360	8,690
Mercury	130	1,700	50 (M); 1.2	48,000	52,000	20,000,000	160,000	22 (M)	<50	<50	<50	<50
Selenium	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NA	<400	<400	<400	<400
Polynuclear Aromatic Hydrocarbons (PNAs)												
All Analyzed PNAs	CS	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL

µg/kg - micrograms per kilogram
*Per R299.46, October 12, 2023
**Per VI Guidance Document, updated February 26, 2024
CS - Compound specific.
<RL - Not detected. Below the laboratory reporting limit.
NA - Not available.
NLV - Hazardous substance is not likely to volatilize under most conditions.
G - Groundwater Surface Water Interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water.
M - Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
X - The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water used as a drinking water source.

Table 3 - Groundwater Sample Analytical Results
0, 2755, and 2990 Tooley Road, and 0 Bowen Road, Howell Township, MI
ASTI Project No. A24-1988.01

Parameters	Residential Drinking Water Criteria*	Groundwater Surface Water Interface Criteria*	Residential Groundwater Volatilization to Indoor Air Inhalation Criteria*	Residential Volatilization to Indoor Air Pathway Screening Levels**								
	µg/L	µg/L	µg/L	µg/L	SB-4-GW 5/9/2025 µg/L	MW-7 5/9/2025 µg/L	DUP-1-GW MW-7 5/9/2025 µg/L	MW-8 5/9/2025 µg/L	MW-9 5/9/2025 µg/L	MW-10 5/9/2025 µg/L	SB-14-GW 5/9/2025 µg/L	MW-15 5/9/2025 µg/L
Metals												
Arsenic	10 (A)	10	NLV	NA	~	<2	<2	~	<2	<2	2	4
Barium	2,000 (A)	(G)	NLV	NA	~	~	~	~	~	~	27	~
Cadmium	5.0 (A)	(G,X)	NLV	NA	~	<0.5	<0.5	~	<0.5	<0.5	<0.5	<0.5
Chromium	100 (A)	11	NLV	NA	~	~	~	~	~	~	<5	~
Copper	1,000 (E)	(G)	NLV	NA	~	~	~	~	~	~	<5	~
Lead	4.0 (L)	(G,X)	NLV	NA	<3	<3	<3	~	<3	<3	<3	<3
Mercury	2 (A)	0.0013	56 (S)	0.088	~	<0.2	<0.2	~	<0.2	<0.2	<0.2	<0.2
Selenium	50 (A)	5	NLV	NA	~	<5	<5	~	<5	<5	<5	<5
Silver	34	0.2 (M)	NLV	NA	~	~	~	~	~	~	<0.5	~
Zinc	2,400	(G)	NLV	NA	~	~	~	~	~	~	7	~
Per- and Polyfluoroalkyl Substances (PFAS)												
Perfluorobutanoic acid (PFBA)	NA	NA	ID	NA	~	<10	<11	<10	13	69	~	<11
Perfluoropentanoic acid (PFPeA)	NA	NA	ID	NA	~	<4	<4.3	<4.1	27	86	~	<4.3
Perfluorohexanoic acid (PFHxA)	400,000 (A)	NA	ID	NA	~	<2	<2.2	<2.1	31	27	~	<2.2
Perfluorobutanesulfonic acid (PFBS)	420 (A)	670,000 (X)	ID	NA	~	7.5	8.7	<2.1	460	550	~	21
Perfluoroheptanoic acid (PFHpA)	NA	NA	ID	NA	~	<2	<2.2	<2.1	4.2	<2.1	~	<2.2
Perfluorooctanoic acid (PFOA)	8 (A)	170 (X)	ID	NA	~	<2	<2.2	<2.1	6.2	<2.1	~	<2.2
Perfluorohexanesulfonic acid (PFHxS)	51 (A)	210 (X)	ID	NA	~	<2	<2.2	<2.1	<2	2.5	~	<2.2
Perfluorooctanesulfonic acid (PFOS)	16 (A)	12 (X)	NLV	NA	~	<2	<2.2	<2.1	5.1	<2.1	~	<2.2
Perfluorooctanesulfonic acid linear (PFOS-LN)	NA	NA	NA	NA	~	<2	<2.2	<2.1	3.5	<2.1	~	<2.2
Remaining Analyzed PFAS	CS	CS	CS	CS	~	<RL	<RL	<RL	<RL	<RL	~	<RL
Polychlorinated Biphenyls (PCBs)												
All Analyzed PCBs	CS	CS	CS	CS	~	~	~	<RL	~	~	~	~
Polynuclear Aromatic Hydrocarbons (PNAs)												
All Analyzed PNAs	CS	CS	CS	CS	~	<RL	<RL	~	<RL	~	<RL	<RL
Volatile Organic Compounds (VOCs)												
All Analyzed VOCs	CS	CS	CS	CS	~	~	~	~	~	~	<RL	~

µg/L = micrograms per liter

ng/L = nanograms per liter

*Generic Residential Cleanup Criteria (GRCC) per R299.46, October 12, 2023

**Volatilization to Indoor Air Pathway Screening Levels (VIAP SLs) per VI Guidance Document, updated February 26, 2024

NA - Not available.

NLV - Hazardous substance is not likely to volatilize under most conditions.

A - Criterion is the State of Michigan drinking water standard established pursuant to Section 5.

E-Criterion is the aesthetic drinking water value, as required by Section 20120a(5) of the act.

G - Groundwater Surface Water Interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water.

L-Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(10)

of the act, and are not calculated using the algorithms and assumptions specified in pathway-specific rules.

S-Criterion defaults to the hazardous substance-specific water solubility limit.

M-Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.

X-The Groundwater Surface Water Interface (GSI) criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as drinking water source.

CS - Compound specific.

<RL - Not detected. Below the laboratory reporting limit.

Bold/highlighted results exceed the GRCC and/or VIAP SL

Table 4 - Calculation of Site-Specific Direct Contact Criteria for Recreational Use

0, 2755, and 2990 Tooley Road, and 0 Bowen Road, Howell Township, MI
ASTI Project No. A24-1988.01

<i>Compound</i>	<i>Site-Specific Direct Contact Criterion</i>											
	<i>(SSDCC)</i>	<i>TR</i>	<i>AT</i>	<i>CF</i>	<i>SFo</i>	<i>EFi</i>	<i>IF</i>	<i>AEi</i>	<i>SFd</i>	<i>EFd</i>	<i>DF</i>	<i>AEd</i>
	<i>(µg/kg)</i>	<i>(unitless)</i>	<i>(days)</i>	<i>(µg/kg)</i>	<i>((mg/kg-day)⁻¹)</i>	<i>(days/year)</i>	<i>(mg-yr/kg-day)</i>	<i>(unitless)</i>	<i>((mg/kg-day)⁻¹)</i>	<i>(days/year)</i>	<i>(mg-yr/kg-day)</i>	<i>(unitless)</i>
Arsenic^	11,868	1.0E-05	25,550	1.0E+09	1.5	245	101	0.5	1.5	160	425	0.03

Notes:
µg/kg = micrograms per kilogram
SSDCC = (TR*AT*CF)/((SF*EFi*IF*Aei*RBA)+(SF*EFd*DF*AEd)) for chemicals with carcinogenic effects per R 299.20 proposed 2017 revision
TR = Target Risk Level (Carcinogens)
AT = Averaging Time
CF = Conversion Factor
SFo = Oral Slope Factor
SFd = Dermal Slope Factor
EFi = Ingestion Exposure Frequency
IF = Age-adjusted Soil Ingestion Factor
AEi = Ingestion Absorption Efficiency
EFd = Dermal Exposure Frequency
DF = Age-adjusted Soil Dermal Factor
AEd = Dermal Absorption Efficiency
^ = SSDCC is based on carcinogenic effects

ATTACHMENTS

Attachment A

Laboratory Analytical Reports and Chain-of-Custody Documentation



Analytical Laboratory Report

Report ID: S74399.01(01)
Generated on 05/21/2025

Report to
Attention: Jeremy Efros
ASTI Environmental
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Brighton, MI 48116

Phone: 810-360-9310 FAX:
Email: jefros@asti-env.com

Additional Contacts: Brad Buswell, Brady Metzger

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John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary
Lab Sample ID(s): S74399.01-S74399.23
Project: A24-1988.01 2755, and 2990 Tooley Rd, and 0 Bowen Rd.
Collected Date(s): 05/08/2025 - 05/09/2025
Submitted Date/Time: 05/12/2025 13:40
Sampled by: Brady Metzger
P.O. #:

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- Laboratory Accreditations (Page 3)
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- Glossary of Abbreviations (Page 3)
- Method Summary (Page 4)
- Parameter Summary (Page 5)
- Sample Summary (Page 6)


Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Starred (*) analytes are not NY NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

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Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.

For a specific list of accredited analytes, please feel free to contact the laboratory or visit <https://www.meritlabs.com/certifications>.

Report Narrative

There is no additional narrative for this analytical report



Analytical Laboratory Report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
o	Associated EIS outside of control limits
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
q	Qualifier ion ratio outside of control limits
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
ASTMD7979-19M	ASTM Method D7979 - 19 Modified (Isotopic Dilution)
E200.8	EPA Method 200.8 Revision 5.4
E245.1	EPA Method 245.1 Revision 3.0
E608.3	EPA Method 608.3 December 2016
N/A	Not Applicable
SM2540B	Standard Method 2540 B 2020
SW3015A	SW 846 Method 3015A Revision 1 February 2007
SW3050B	SW 846 Method 3050B Revision 2 December 1996
SW3510C	SW 846 Method 3510C Revision 3 December 1996
SW3546	SW 846 Method 3546 Revision 0 February 2007
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003
SW5035A	SW 846 Method 5035A Revision 1 July 2002
SW5035A/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5035A Revision 1 July 2002
SW6020A	SW 846 Method 6020A Revision 1 February 2007
SW7471B	SW 846 Method 7471B Revision 2 February 2007
SW8270D	SW 846 Method 8270D Revision 4 February 2007

Parameter Summary

Parameter	Synonym	Cas #
PFBA	Perfluorobutanoic Acid	375-22-4
PFPeA	Perfluoropentanoic Acid	2706-90-3
4:2 FTSA	4:2 Fluorotelomer Sulfonic Acid	757124-72-4
PFHxA	Perfluorohexanoic Acid	307-24-4
PFBS	Perfluorobutane sulfonic Acid	375-73-5
PFHpA	Perfluoroheptanoic Acid	375-85-9
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4
6:2 FTSA	6:2 Fluorotelomer Sulfonic Acid	27619-97-2
PFOA	Perfluorooctanoic Acid	335-67-1
PFHxS	Perfluorohexane Sulfonic Acid	355-46-4
PFHxS-LN	Perfluorohexane Sulfonic Acid - LN	355-46-4-LN
PFHxS-BR	Perfluorohexane Sulfonic Acid - BR	355-46-4-BR
PFNA	Perfluorononanoic Acid	375-95-1
8:2 FTSA	8:2 Fluorotelomer Sulfonic Acid	39108-34-4
PFHpS	Perfluoroheptane Sulfonic Acid	375-92-8
PFDA	Perfluorodecanoic Acid	335-76-2
N-MeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9
EtFOSAA	N-Ethyl Perfluorooctane Sulfonamidoacetic Acid	2991-50-6
PFOS	Perfluorooctane Sulfonic Acid	1763-23-1
PFOS-LN	Perfluorooctane Sulfonic Acid - LN	1763-23-1-LN
PFOS-BR	Perfluorooctane Sulfonic Acid - BR	1763-23-1-BR
PFUnDA	Perfluoroundecanoic Acid	2058-94-8
PFNS	Perfluorononane Sulfonic Acid	68259-12-1
PFDoDA	Perfluorododecanoic Acid	307-55-1
PFDS	Perfluorodecane Sulfonic Acid	335-77-3
PFTTrDA	Perfluorotridecanoic Acid	72629-94-8
FOSA	Perfluorooctane Sulfonamide	754-91-6
PFTeDA	Perfluorotetradecanoic Acid	376-06-7
11Cl-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9
9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanone1-sulfonic acid	756426-58-1
ADONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4
HFPO-DA	Hexafluoropropylene oxide dimer	13252-13-6
FHpPA (7:3 FTCA)	3-Perfluoroheptyl propanoic acid	812-70-4
FPePA (5:3 FTCA)	3-Perfluoropentyl propanoic acid	914637-49-3
FPrPA (3:3 FTCA)	3-Perfluoropropyl propanoic acid	356-02-5
NFDHA	Nonafluoro-3,6-dioxaheptanoic acid	151772-58-6
PFEESA	Perfluoro(2-ethoxyethane)sulfonic acid	113507-82-7
PFMBA	Perfluoro-4-methoxybutanoic acid	863090-89-5
PFMPA	Perfluoro-3-methoxypropanoic acid	377-73-1
NMeFOSAM	N-Methylperfluorooctanesulfonamide	31506-32-8
NMeFOSE	N-Methylperfluorooctanesulfonamidoethanol	24448-09-7
NEtFOSAM	N-Ethylperfluorooctanesulfonamide	4151-50-2
NEtFOSE	N-Ethylperfluorooctanesulfonamidoethanol	1691-99-2
PFDoS	Perfluorododecanesulfonic acid	79780-39-5



Analytical Laboratory Report

Sample Summary (23 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S74399.01	SB-1 (4-4.5)	Soil	05/08/25 09:44
S74399.02	SB-1 (14-15)	Soil	05/08/25 09:57
S74399.03	SB-2 (2-2.5)	Soil	05/08/25 10:25
S74399.04	SB-2 (13-14)	Soil	05/08/25 10:40
S74399.05	SB-3 (3.5-4)	Soil	05/08/25 11:00
S74399.06	SB-4 (3.5-4)	Soil	05/08/25 12:00
S74399.07	SB-5 (4-5)	Soil	05/08/25 12:40
S74399.08	MW-7	Groundwater	05/09/25 13:35
S74399.09	MW-8	Groundwater	05/09/25 12:40
S74399.10	MW-9	Groundwater	05/09/25 11:20
S74399.11	MW-10	Groundwater	05/09/25 10:55
S74399.12	SB-11 (2.5-3')	Soil	05/09/25 09:45
S74399.13	SB-12 (3-3.5)	Soil	05/09/25 10:05
S74399.14	SB-12 (1-2)	Soil	05/09/25 10:26
S74399.15	SB-13 (3.5-4)	Soil	05/09/25 10:13
S74399.16	SB-14 (3.5-4)	Soil	05/09/25 09:30
S74399.17	SB-14-GW	Groundwater	05/09/25 09:45
S74399.18	SB-4-GW	Groundwater	05/09/25 13:02
S74399.19	MW-15	Groundwater	05/09/25 14:35
S74399.20	DUP-1S	Soil	05/08/25 00:01
S74399.21	DUP-2S	Soil	05/08/25 00:01
S74399.22	DUP-1-GW	Groundwater	05/09/25 00:01
S74399.23	Methanol Blank	Methanol	05/09/25 00:01



Analytical Laboratory Report

Lab Sample ID: S74399.01

Sample Tag: SB-1 (4-4.5)

Collected Date/Time: 05/08/2025 09:44

Matrix: Soil

COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	11.050/11	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	85	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:24, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	7,350	200		ug/kg	248	7440-38-2	
Barium	50,400	1,000		ug/kg	248	7440-39-3	
Cadmium	Not detected	200		ug/kg	248	7440-43-9	
Chromium	14,400	500		ug/kg	248	7440-47-3	
Copper	17,700	500		ug/kg	248	7440-50-8	
Lead	7,560	300		ug/kg	248	7439-92-1	
Selenium	410	400		ug/kg	248	7782-49-2	
Silver	Not detected	200		ug/kg	248	7440-22-4	
Zinc	40,700	500		ug/kg	248	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 15:51, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	64	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 18:18, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.01 (continued)

Sample Tag: SB-1 (4-4.5)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 18:18, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 21:21, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	67.4	60-29-7	
Acetone	Not detected	1,000		ug/kg	67.4	67-64-1	
Methyl iodide	Not detected	100		ug/kg	67.4	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	67.4	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	67.4	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	67.4	107-13-1	
2-Butanone (MEK)	Not detected	1,000		ug/kg	67.4	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	67.4	75-71-8	
Chloromethane	Not detected	300		ug/kg	67.4	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	67.4	75-01-4	
Bromomethane	Not detected	300		ug/kg	67.4	74-83-9	
Chloroethane	Not detected	300		ug/kg	67.4	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	67.4	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	67.4	75-35-4	
Methylene chloride	Not detected	100		ug/kg	67.4	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	67.4	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	67.4	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	67.4	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	67.4	109-99-9	
Chloroform	Not detected	70		ug/kg	67.4	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	67.4	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	67.4	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	67.4	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	67.4	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	67.4	56-23-5	
Benzene	Not detected	70		ug/kg	67.4	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	67.4	107-06-2	
Trichloroethene	Not detected	70		ug/kg	67.4	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	67.4	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	67.4	75-27-4	
Dibromomethane	Not detected	300		ug/kg	67.4	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	67.4	10061-01-5	
Toluene	Not detected	70		ug/kg	67.4	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	67.4	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	67.4	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	67.4	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	67.4	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	67.4	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	67.4	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.01 (continued)

Sample Tag: SB-1 (4-4.5)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 21:21, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	70		ug/kg	67.4	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	67.4	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	67.4	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	67.4		
o-Xylene	Not detected	70		ug/kg	67.4	95-47-6	
Styrene	Not detected	70		ug/kg	67.4	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	67.4	98-82-8	
Bromoform	Not detected	100		ug/kg	67.4	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	67.4	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	67.4	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	67.4	103-65-1	
Bromobenzene	Not detected	100		ug/kg	67.4	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	67.4	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	67.4	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	67.4	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	67.4	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	67.4	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	67.4	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	67.4	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	67.4	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	67.4	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	67.4	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	67.4	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	67.4	96-12-8	
1,2,4-Trichlorobenzene	Not detected	440		ug/kg	67.4	120-82-1	
1,2,3-Trichlorobenzene	Not detected	440		ug/kg	67.4	87-61-6	
Naphthalene	Not detected	300		ug/kg	67.4	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	67.4	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.02
Sample Tag: SB-1 (14-15)
Collected Date/Time: 05/08/2025 09:57
Matrix: Soil
COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	11.146/11	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	96	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:26, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	4,230	200		ug/kg	215	7440-38-2	
Barium	5,680	1,000		ug/kg	215	7440-39-3	
Cadmium	Not detected	200		ug/kg	215	7440-43-9	
Chromium	2,930	500		ug/kg	215	7440-47-3	
Copper	5,930	500		ug/kg	215	7440-50-8	
Lead	3,260	300		ug/kg	215	7439-92-1	
Selenium	Not detected	400		ug/kg	215	7782-49-2	
Silver	Not detected	200		ug/kg	215	7440-22-4	
Zinc	24,300	500		ug/kg	215	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 15:55, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	59	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 18:41, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.02 (continued)

Sample Tag: SB-1 (14-15)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 18:41, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 21:45, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	53.5	60-29-7	
Acetone	Not detected	1,000		ug/kg	53.5	67-64-1	
Methyl iodide	Not detected	100		ug/kg	53.5	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	53.5	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	53.5	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	53.5	107-13-1	
2-Butanone (MEK)	Not detected	800		ug/kg	53.5	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	53.5	75-71-8	
Chloromethane	Not detected	300		ug/kg	53.5	74-87-3	
Vinyl chloride	Not detected	50		ug/kg	53.5	75-01-4	
Bromomethane	Not detected	200		ug/kg	53.5	74-83-9	
Chloroethane	Not detected	300		ug/kg	53.5	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	53.5	75-69-4	
1,1-Dichloroethene	Not detected	50		ug/kg	53.5	75-35-4	
Methylene chloride	Not detected	100		ug/kg	53.5	75-09-2	
trans-1,2-Dichloroethene	Not detected	50		ug/kg	53.5	156-60-5	
1,1-Dichloroethane	Not detected	50		ug/kg	53.5	75-34-3	
cis-1,2-Dichloroethene	Not detected	50		ug/kg	53.5	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	53.5	109-99-9	
Chloroform	Not detected	50		ug/kg	53.5	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	53.5	74-97-5	
1,1,1-Trichloroethane	Not detected	50		ug/kg	53.5	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	53.5	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	53.5	591-78-6	
Carbon tetrachloride	Not detected	50		ug/kg	53.5	56-23-5	
Benzene	Not detected	50		ug/kg	53.5	71-43-2	
1,2-Dichloroethane	Not detected	50		ug/kg	53.5	107-06-2	
Trichloroethene	Not detected	50		ug/kg	53.5	79-01-6	
1,2-Dichloropropane	Not detected	50		ug/kg	53.5	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	53.5	75-27-4	
Dibromomethane	Not detected	300		ug/kg	53.5	74-95-3	
cis-1,3-Dichloropropene	Not detected	50		ug/kg	53.5	10061-01-5	
Toluene	Not detected	50		ug/kg	53.5	108-88-3	
trans-1,3-Dichloropropene	Not detected	50		ug/kg	53.5	10061-02-6	
1,1,2-Trichloroethane	Not detected	50		ug/kg	53.5	79-00-5	
Tetrachloroethene	Not detected	50		ug/kg	53.5	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	50		ug/kg	53.5	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	53.5	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	53.5	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.02 (continued)
Sample Tag: SB-1 (14-15)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 21:45, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	50		ug/kg	53.5	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	53.5	630-20-6	
Ethylbenzene	Not detected	50		ug/kg	53.5	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	53.5		
o-Xylene	Not detected	50		ug/kg	53.5	95-47-6	
Styrene	Not detected	50		ug/kg	53.5	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	53.5	98-82-8	
Bromoform	Not detected	100		ug/kg	53.5	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	50		ug/kg	53.5	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	53.5	96-18-4	
n-Propylbenzene	Not detected	50		ug/kg	53.5	103-65-1	
Bromobenzene	Not detected	100		ug/kg	53.5	108-86-1	
1,3,5-Trimethylbenzene	Not detected	50		ug/kg	53.5	108-67-8	
tert-Butylbenzene	Not detected	50		ug/kg	53.5	98-06-6	
1,2,4-Trimethylbenzene	Not detected	50		ug/kg	53.5	95-63-6	
sec-Butylbenzene	Not detected	50		ug/kg	53.5	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	53.5	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	53.5	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	53.5	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	53.5	95-50-1	
1,2,3-Trimethylbenzene	Not detected	50		ug/kg	53.5	526-73-8	
n-Butylbenzene	Not detected	50		ug/kg	53.5	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	53.5	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	53.5	96-12-8	
1,2,4-Trichlorobenzene	Not detected	350		ug/kg	53.5	120-82-1	
1,2,3-Trichlorobenzene	Not detected	350		ug/kg	53.5	87-61-6	
Naphthalene	Not detected	300		ug/kg	53.5	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	53.5	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.03
Sample Tag: SB-2 (2-2.5)
Collected Date/Time: 05/08/2025 10:25
Matrix: Soil
COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	10.856/10	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	86	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:28, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	6,720	200		ug/kg	243	7440-38-2	
Barium	36,800	1,000		ug/kg	243	7440-39-3	
Cadmium	Not detected	200		ug/kg	243	7440-43-9	
Chromium	10,800	500		ug/kg	243	7440-47-3	
Copper	11,600	500		ug/kg	243	7440-50-8	
Lead	8,960	300		ug/kg	243	7439-92-1	
Selenium	Not detected	400		ug/kg	243	7782-49-2	
Silver	Not detected	200		ug/kg	243	7440-22-4	
Zinc	40,200	500		ug/kg	243	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:04, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	67	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 19:04, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.03 (continued)

Sample Tag: SB-2 (2-2.5)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 19:04, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 22:09, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	61.7	60-29-7	
Acetone	Not detected	1,000		ug/kg	61.7	67-64-1	
Methyl iodide	Not detected	100		ug/kg	61.7	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	61.7	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	61.7	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	61.7	107-13-1	
2-Butanone (MEK)	Not detected	930		ug/kg	61.7	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	61.7	75-71-8	
Chloromethane	Not detected	300		ug/kg	61.7	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	61.7	75-01-4	
Bromomethane	Not detected	200		ug/kg	61.7	74-83-9	
Chloroethane	Not detected	300		ug/kg	61.7	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	61.7	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	61.7	75-35-4	
Methylene chloride	Not detected	100		ug/kg	61.7	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	61.7	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	61.7	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	61.7	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	61.7	109-99-9	
Chloroform	Not detected	60		ug/kg	61.7	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	61.7	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	61.7	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	61.7	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	61.7	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	61.7	56-23-5	
Benzene	Not detected	60		ug/kg	61.7	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	61.7	107-06-2	
Trichloroethene	Not detected	60		ug/kg	61.7	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	61.7	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	61.7	75-27-4	
Dibromomethane	Not detected	300		ug/kg	61.7	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	61.7	10061-01-5	
Toluene	Not detected	60		ug/kg	61.7	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	61.7	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	61.7	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	61.7	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	61.7	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	61.7	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	61.7	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.03 (continued)

Sample Tag: SB-2 (2-2.5)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 22:09, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	60		ug/kg	61.7	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	61.7	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	61.7	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	61.7		
o-Xylene	Not detected	60		ug/kg	61.7	95-47-6	
Styrene	Not detected	60		ug/kg	61.7	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	61.7	98-82-8	
Bromoform	Not detected	100		ug/kg	61.7	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	61.7	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	61.7	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	61.7	103-65-1	
Bromobenzene	Not detected	100		ug/kg	61.7	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	61.7	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	61.7	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	61.7	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	61.7	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	61.7	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	61.7	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	61.7	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	61.7	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	61.7	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	61.7	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	61.7	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	61.7	96-12-8	
1,2,4-Trichlorobenzene	Not detected	410		ug/kg	61.7	120-82-1	
1,2,3-Trichlorobenzene	Not detected	410		ug/kg	61.7	87-61-6	
Naphthalene	Not detected	300		ug/kg	61.7	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	61.7	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.04
Sample Tag: SB-2 (13-14)
Collected Date/Time: 05/08/2025 10:40
Matrix: Soil
COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	11.127/11	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	90	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:30, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	3,970	200		ug/kg	235	7440-38-2	
Barium	22,500	1,000		ug/kg	235	7440-39-3	
Cadmium	Not detected	200		ug/kg	235	7440-43-9	
Chromium	11,300	500		ug/kg	235	7440-47-3	
Copper	11,800	500		ug/kg	235	7440-50-8	
Lead	4,220	300		ug/kg	235	7439-92-1	
Selenium	560	400		ug/kg	235	7782-49-2	
Silver	Not detected	200		ug/kg	235	7440-22-4	
Zinc	27,600	500		ug/kg	235	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:08, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	61	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 19:28, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.04 (continued)

Sample Tag: SB-2 (13-14)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 19:28, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 22:33, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	60.5	60-29-7	
Acetone	Not detected	1,000		ug/kg	60.5	67-64-1	
Methyl iodide	Not detected	100		ug/kg	60.5	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	60.5	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	60.5	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	60.5	107-13-1	
2-Butanone (MEK)	Not detected	910		ug/kg	60.5	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	60.5	75-71-8	
Chloromethane	Not detected	300		ug/kg	60.5	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	60.5	75-01-4	
Bromomethane	Not detected	200		ug/kg	60.5	74-83-9	
Chloroethane	Not detected	300		ug/kg	60.5	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	60.5	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	60.5	75-35-4	
Methylene chloride	Not detected	100		ug/kg	60.5	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	60.5	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	60.5	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	60.5	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	60.5	109-99-9	
Chloroform	Not detected	60		ug/kg	60.5	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	60.5	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	60.5	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	60.5	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	60.5	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	60.5	56-23-5	
Benzene	Not detected	60		ug/kg	60.5	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	60.5	107-06-2	
Trichloroethene	Not detected	60		ug/kg	60.5	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	60.5	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	60.5	75-27-4	
Dibromomethane	Not detected	300		ug/kg	60.5	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	60.5	10061-01-5	
Toluene	Not detected	60		ug/kg	60.5	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	60.5	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	60.5	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	60.5	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	60.5	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	60.5	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	60.5	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.04 (continued)
Sample Tag: SB-2 (13-14)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 22:33, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	60		ug/kg	60.5	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	60.5	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	60.5	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	60.5		
o-Xylene	Not detected	60		ug/kg	60.5	95-47-6	
Styrene	Not detected	60		ug/kg	60.5	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	60.5	98-82-8	
Bromoform	Not detected	100		ug/kg	60.5	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	60.5	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	60.5	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	60.5	103-65-1	
Bromobenzene	Not detected	100		ug/kg	60.5	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	60.5	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	60.5	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	60.5	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	60.5	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	60.5	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	60.5	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	60.5	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	60.5	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	60.5	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	60.5	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	60.5	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	60.5	96-12-8	
1,2,4-Trichlorobenzene	Not detected	400		ug/kg	60.5	120-82-1	
1,2,3-Trichlorobenzene	Not detected	400		ug/kg	60.5	87-61-6	
Naphthalene	Not detected	300		ug/kg	60.5	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	60.5	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.05
Sample Tag: SB-3 (3.5-4)
Collected Date/Time: 05/08/2025 11:00
Matrix: Soil
COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	77	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:32, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	8,080	300		ug/kg	270	7439-92-1	



Analytical Laboratory Report

Lab Sample ID: S74399.06
Sample Tag: SB-4 (3.5-4)
Collected Date/Time: 05/08/2025 12:00
Matrix: Soil
COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	84	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:34, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	15,700	300		ug/kg	255	7439-92-1	



Analytical Laboratory Report

Lab Sample ID: S74399.07

Sample Tag: SB-5 (4-5)

Collected Date/Time: 05/08/2025 12:40

Matrix: Soil

COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	10.041/10	SW5035A	05/13/25 11:48	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	90	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:36, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	9,040	200		ug/kg	236	7440-38-2	
Barium	29,300	1,000		ug/kg	236	7440-39-3	
Cadmium	Not detected	200		ug/kg	236	7440-43-9	
Chromium	7,940	500		ug/kg	236	7440-47-3	
Copper	11,200	500		ug/kg	236	7440-50-8	
Lead	7,930	300		ug/kg	236	7439-92-1	
Selenium	Not detected	400		ug/kg	236	7782-49-2	
Silver	Not detected	200		ug/kg	236	7440-22-4	
Zinc	40,600	500		ug/kg	236	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:11, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	62	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 19:51, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.07 (continued)

Sample Tag: SB-5 (4-5)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 19:51, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/13/25 15:12, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	60.9	60-29-7	x
Acetone	Not detected	1,000		ug/kg	60.9	67-64-1	x
Methyl iodide	Not detected	100		ug/kg	60.9	74-88-4	x
Carbon disulfide	Not detected	300		ug/kg	60.9	75-15-0	x
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	60.9	1634-04-4	x
Acrylonitrile	Not detected	100		ug/kg	60.9	107-13-1	x
2-Butanone (MEK)	Not detected	910		ug/kg	60.9	78-93-3	x
Dichlorodifluoromethane	Not detected	300		ug/kg	60.9	75-71-8	x
Chloromethane	Not detected	300		ug/kg	60.9	74-87-3	x
Vinyl chloride	Not detected	60		ug/kg	60.9	75-01-4	x
Bromomethane	Not detected	200		ug/kg	60.9	74-83-9	x
Chloroethane	Not detected	300		ug/kg	60.9	75-00-3	x
Trichlorofluoromethane	Not detected	100		ug/kg	60.9	75-69-4	x
1,1-Dichloroethene	Not detected	60		ug/kg	60.9	75-35-4	x
Methylene chloride	Not detected	100		ug/kg	60.9	75-09-2	x
trans-1,2-Dichloroethene	Not detected	60		ug/kg	60.9	156-60-5	x
1,1-Dichloroethane	Not detected	60		ug/kg	60.9	75-34-3	x
cis-1,2-Dichloroethene	Not detected	60		ug/kg	60.9	156-59-2	x
Tetrahydrofuran	Not detected	1,000		ug/kg	60.9	109-99-9	x
Chloroform	Not detected	60		ug/kg	60.9	67-66-3	x
Bromochloromethane	Not detected	100		ug/kg	60.9	74-97-5	x
1,1,1-Trichloroethane	Not detected	60		ug/kg	60.9	71-55-6	x
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	60.9	108-10-1	x
2-Hexanone	Not detected	3,000		ug/kg	60.9	591-78-6	x
Carbon tetrachloride	Not detected	60		ug/kg	60.9	56-23-5	x
Benzene	Not detected	60		ug/kg	60.9	71-43-2	x
1,2-Dichloroethane	Not detected	60		ug/kg	60.9	107-06-2	x
Trichloroethene	Not detected	60		ug/kg	60.9	79-01-6	x
1,2-Dichloropropane	Not detected	60		ug/kg	60.9	78-87-5	x
Bromodichloromethane	Not detected	100		ug/kg	60.9	75-27-4	x
Dibromomethane	Not detected	300		ug/kg	60.9	74-95-3	x
cis-1,3-Dichloropropene	Not detected	60		ug/kg	60.9	10061-01-5	x
Toluene	Not detected	60		ug/kg	60.9	108-88-3	x
trans-1,3-Dichloropropene	Not detected	60		ug/kg	60.9	10061-02-6	x
1,1,2-Trichloroethane	Not detected	60		ug/kg	60.9	79-00-5	x
Tetrachloroethene	Not detected	60		ug/kg	60.9	127-18-4	x
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	60.9	110-57-6	x
Dibromochloromethane	Not detected	100		ug/kg	60.9	124-48-1	x

x-Preserved from bulk sample



Analytical Laboratory Report

Lab Sample ID: S74399.07 (continued)

Sample Tag: SB-5 (4-5)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/13/25 15:12, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2-Dibromoethane	Not detected	20		ug/kg	60.9	106-93-4	Mx
Chlorobenzene	Not detected	60		ug/kg	60.9	108-90-7	x
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	60.9	630-20-6	x
Ethylbenzene	Not detected	60		ug/kg	60.9	100-41-4	x
p,m-Xylene	Not detected	100		ug/kg	60.9		x
o-Xylene	Not detected	60		ug/kg	60.9	95-47-6	x
Styrene	Not detected	60		ug/kg	60.9	100-42-5	x
Isopropylbenzene	Not detected	300		ug/kg	60.9	98-82-8	x
Bromoform	Not detected	100		ug/kg	60.9	75-25-2	x
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	60.9	79-34-5	x
1,2,3-Trichloropropane	Not detected	100		ug/kg	60.9	96-18-4	x
n-Propylbenzene	Not detected	60		ug/kg	60.9	103-65-1	x
Bromobenzene	Not detected	100		ug/kg	60.9	108-86-1	x
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	60.9	108-67-8	x
tert-Butylbenzene	Not detected	60		ug/kg	60.9	98-06-6	x
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	60.9	95-63-6	x
sec-Butylbenzene	Not detected	60		ug/kg	60.9	135-98-8	x
p-Isopropyltoluene	Not detected	100		ug/kg	60.9	99-87-6	x
1,3-Dichlorobenzene	Not detected	100		ug/kg	60.9	541-73-1	x
1,4-Dichlorobenzene	Not detected	100		ug/kg	60.9	106-46-7	x
1,2-Dichlorobenzene	Not detected	100		ug/kg	60.9	95-50-1	x
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	60.9	526-73-8	x
n-Butylbenzene	Not detected	60		ug/kg	60.9	104-51-8	x
Hexachloroethane	Not detected	400		ug/kg	60.9	67-72-1	x
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	60.9	96-12-8	x
1,2,4-Trichlorobenzene	Not detected	400		ug/kg	60.9	120-82-1	x
1,2,3-Trichlorobenzene	Not detected	400		ug/kg	60.9	87-61-6	x
Naphthalene	Not detected	300		ug/kg	60.9	91-20-3	x
2-Methylnaphthalene	Not detected	100		ug/kg	60.9	91-57-6	x

M-Result reported to MDL not RDL x-Preserved from bulk sample



Analytical Laboratory Report

Lab Sample ID: S74399.08
Sample Tag: MW-7
Collected Date/Time: 05/09/2025 13:35
Matrix: Groundwater
COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Amber	None	Yes	3.2	IR
1	125mL Plastic	HNO3	Yes	3.2	IR
1	15mL Centrifuge Tube	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.03/6.55/9	ASTMD7979-19M	05/14/25 12:30	CED	
Mercury Digestion	Completed	E245.1	05/13/25 11:45	CTV	
Metal Digestion	Completed	SW3015A	05/13/25 09:05	JRH	
PNA Extraction	Completed	SW3510C	05/15/25 10:30	JWR	

Metals

Method: E200.8, Run Date: 05/13/25 12:04, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	Not detected	2		ug/L	5	7440-38-2	
Cadmium	Not detected	0.5		ug/L	5	7440-43-9	
Lead	Not detected	3		ug/L	5	7439-92-1	
Selenium	Not detected	5		ug/L	5	7782-49-2	

Method: E245.1, Run Date: 05/13/25 14:51, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.2		ug/L	1	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatic Hydrocarbon, Method: SW8270D, Run Date: 05/15/25 19:14, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	5		ug/L	2	83-32-9	
Acenaphthylene	Not detected	5		ug/L	2	208-96-8	
Anthracene	Not detected	5		ug/L	2	120-12-7	
Benzo(a)anthracene	Not detected	1		ug/L	2	56-55-3	
Benzo(a)pyrene	Not detected	1		ug/L	2	50-32-8	
Benzo(b)fluoranthene	Not detected	1		ug/L	2	205-99-2	
Benzo(k)fluoranthene	Not detected	1		ug/L	2	207-08-9	
Benzo(ghi)perylene	Not detected	1		ug/L	2	191-24-2	
Chrysene	Not detected	1		ug/L	2	218-01-9	
Dibenzo(ah)anthracene	Not detected	2		ug/L	2	53-70-3	
Fluoranthene	Not detected	1		ug/L	2	206-44-0	
Fluorene	Not detected	5		ug/L	2	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	2		ug/L	2	193-39-5	
Naphthalene	Not detected	5		ug/L	2	91-20-3	
Phenanthrene	Not detected	2		ug/L	2	85-01-8	
Pyrene	Not detected	5		ug/L	2	129-00-0	
2-Methylnaphthalene	Not detected	5		ug/L	2	91-57-6	
1-Methylnaphthalene	Not detected	5		ug/L	2	90-12-0	



Analytical Laboratory Report

Lab Sample ID: S74399.08 (continued)

Sample Tag: MW-7

Organics

40 PFAs, Method: ASTMD7979-19M, Run Date: 05/15/25 01:38, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	0.01		ug/L	2.01	375-22-4	
PFPeA*	Not detected	0.0040		ug/L	2.01	2706-90-3	
4:2 FTSA*	Not detected	0.0020		ug/L	2.01	757124-72-4	
PFHxA*	Not detected	0.0020		ug/L	2.01	307-24-4	
PFBS*	0.0075	0.0020		ug/L	2.01	375-73-5	
PFHpA*	Not detected	0.0020		ug/L	2.01	375-85-9	
PFPeS*	Not detected	0.0020		ug/L	2.01	2706-91-4	
6:2 FTSA*	Not detected	0.0020		ug/L	2.01	27619-97-2	
PFOA*	Not detected	0.0020		ug/L	2.01	335-67-1	
PFHxS*	Not detected	0.0020		ug/L	2.01	355-46-4	
PFHxS-LN*	Not detected	0.0020		ug/L	2.01	355-46-4-LN	
PFHxS-BR*	Not detected	0.0020		ug/L	2.01	355-46-4-BR	
PFNA*	Not detected	0.0020		ug/L	2.01	375-95-1	
8:2 FTSA*	Not detected	0.0020		ug/L	2.01	39108-34-4	
PFHpS*	Not detected	0.0020		ug/L	2.01	375-92-8	
PFDA*	Not detected	0.0020		ug/L	2.01	335-76-2	
N-MeFOSAA*	Not detected	0.0020		ug/L	2.01	2355-31-9	
EtFOSAA*	Not detected	0.0040		ug/L	2.01	2991-50-6	
PFOS*	Not detected	0.0020		ug/L	2.01	1763-23-1	
PFOS-LN*	Not detected	0.0020		ug/L	2.01	1763-23-1-LN	
PFOS-BR*	Not detected	0.0020		ug/L	2.01	1763-23-1-BR	
PFUnDA*	Not detected	0.0020		ug/L	2.01	2058-94-8	
PFNS*	Not detected	0.0020		ug/L	2.01	68259-12-1	
PFDODA*	Not detected	0.0020		ug/L	2.01	307-55-1	
PFDS*	Not detected	0.0020		ug/L	2.01	335-77-3	
PFTTrDA*	Not detected	0.0020		ug/L	2.01	72629-94-8	
FOSA*	Not detected	0.0020		ug/L	2.01	754-91-6	
PFTeDA*	Not detected	0.0040		ug/L	2.01	376-06-7	
11CI-PF3OUdS*	Not detected	0.0020		ug/L	2.01	763051-92-9	
9CI-PF3ONS*	Not detected	0.0020		ug/L	2.01	756426-58-1	
ADONA*	Not detected	0.0020		ug/L	2.01	919005-14-4	
HFPO-DA*	Not detected	0.01		ug/L	2.01	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	0.01		ug/L	2.01	812-70-4	
FPePA (5:3 FTCA)*	Not detected	0.01		ug/L	2.01	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	0.01		ug/L	2.01	356-02-5	
NFDHA*	Not detected	0.0020		ug/L	2.01	151772-58-6	
PFEESA*	Not detected	0.0020		ug/L	2.01	113507-82-7	
PFMBA*	Not detected	0.0020		ug/L	2.01	863090-89-5	
PFMPA*	Not detected	0.0020		ug/L	2.01	377-73-1	
NMeFOSAM*	Not detected	0.0020		ug/L	2.01	31506-32-8	
NMeFOSE*	Not detected	0.0040		ug/L	2.01	24448-09-7	
NEtFOSAM*	Not detected	0.0020		ug/L	2.01	4151-50-2	
NEtFOSE*	Not detected	0.0040		ug/L	2.01	1691-99-2	
PFDoS*	Not detected	0.0040		ug/L	2.01	79780-39-5	



Analytical Laboratory Report

Lab Sample ID: S74399.09
Sample Tag: MW-8
Collected Date/Time: 05/09/2025 12:40
Matrix: Groundwater
COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Amber	None	Yes	3.2	IR
1	15mL Centrifuge Tube	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	10.81/6.41/9	ASTMD7979-19M	05/14/25 12:30	CED	
Extraction, PCB*	Completed	E608.3	05/15/25 10:30	JWR	

Organics - PCBs/Pesticides

PCB, Method: E608.3, Run Date: 05/15/25 16:26, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	0.1		ug/L	1	12674-11-2	
PCB-1221	Not detected	0.1		ug/L	1	11104-28-2	
PCB-1232	Not detected	0.1		ug/L	1	11141-16-5	
PCB-1242	Not detected	0.1		ug/L	1	53469-21-9	
PCB-1248	Not detected	0.1		ug/L	1	12672-29-6	
PCB-1254	Not detected	0.1		ug/L	1	11097-69-1	
PCB-1260	Not detected	0.1		ug/L	1	11096-82-5	
PCB, Total*	Not detected	0.1		ug/L	1	1336-36-3	

Organics

40 PFAs, Method: ASTMD7979-19M, Run Date: 05/15/25 01:58, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	0.01		ug/L	2.05	375-22-4	
PFPeA*	Not detected	0.0041		ug/L	2.05	2706-90-3	
4:2 FTSA*	Not detected	0.0021		ug/L	2.05	757124-72-4	
PFHxA*	Not detected	0.0021		ug/L	2.05	307-24-4	
PFBS*	Not detected	0.0021		ug/L	2.05	375-73-5	
PFHpA*	Not detected	0.0021		ug/L	2.05	375-85-9	
PFPeS*	Not detected	0.0021		ug/L	2.05	2706-91-4	
6:2 FTSA*	Not detected	0.0021		ug/L	2.05	27619-97-2	
PFOA*	Not detected	0.0021		ug/L	2.05	335-67-1	
PFHxS*	Not detected	0.0021		ug/L	2.05	355-46-4	
PFHxS-LN*	Not detected	0.0021		ug/L	2.05	355-46-4-LN	
PFHxS-BR*	Not detected	0.0021		ug/L	2.05	355-46-4-BR	
PFNA*	Not detected	0.0021		ug/L	2.05	375-95-1	
8:2 FTSA*	Not detected	0.0021		ug/L	2.05	39108-34-4	
PFHpS*	Not detected	0.0021		ug/L	2.05	375-92-8	
PFDA*	Not detected	0.0021		ug/L	2.05	335-76-2	
N-MeFOSAA*	Not detected	0.0021		ug/L	2.05	2355-31-9	
EtFOSAA*	Not detected	0.0041		ug/L	2.05	2991-50-6	
PFOS*	Not detected	0.0021		ug/L	2.05	1763-23-1	
PFOS-LN*	Not detected	0.0021		ug/L	2.05	1763-23-1-LN	
PFOS-BR*	Not detected	0.0021		ug/L	2.05	1763-23-1-BR	
PFUnDA*	Not detected	0.0021		ug/L	2.05	2058-94-8	
PFNS*	Not detected	0.0021		ug/L	2.05	68259-12-1	



Analytical Laboratory Report

Lab Sample ID: S74399.09 (continued)

Sample Tag: MW-8

40 PFAs, Method: ASTMD7979-19M, Run Date: 05/15/25 01:58, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFDODA*	Not detected	0.0021		ug/L	2.05	307-55-1	
PFDS*	Not detected	0.0021		ug/L	2.05	335-77-3	
PFTTrDA*	Not detected	0.0021		ug/L	2.05	72629-94-8	
FOSA*	Not detected	0.0021		ug/L	2.05	754-91-6	
PFTeDA*	Not detected	0.0041		ug/L	2.05	376-06-7	
11CI-PF3OUdS*	Not detected	0.0021		ug/L	2.05	763051-92-9	
9CI-PF3ONS*	Not detected	0.0021		ug/L	2.05	756426-58-1	
ADONA*	Not detected	0.0021		ug/L	2.05	919005-14-4	
HFPO-DA*	Not detected	0.01		ug/L	2.05	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	0.01		ug/L	2.05	812-70-4	
FPePA (5:3 FTCA)*	Not detected	0.01		ug/L	2.05	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	0.01		ug/L	2.05	356-02-5	
NFDHA*	Not detected	0.0021		ug/L	2.05	151772-58-6	
PFEESA*	Not detected	0.0021		ug/L	2.05	113507-82-7	
PFMBA*	Not detected	0.0021		ug/L	2.05	863090-89-5	
PFMPA*	Not detected	0.0021		ug/L	2.05	377-73-1	
NMeFOSAM*	Not detected	0.0021		ug/L	2.05	31506-32-8	
NMeFOSE*	Not detected	0.0041		ug/L	2.05	24448-09-7	
NEtFOSAM*	Not detected	0.0021		ug/L	2.05	4151-50-2	
NEtFOSE*	Not detected	0.0041		ug/L	2.05	1691-99-2	
PFDoS*	Not detected	0.0041		ug/L	2.05	79780-39-5	



Analytical Laboratory Report

Lab Sample ID: S74399.10
Sample Tag: MW-9
Collected Date/Time: 05/09/2025 11:20
Matrix: Groundwater
COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Amber	None	Yes	3.2	IR
1	125mL Plastic	HNO3	Yes	3.2	IR
1	15mL Centrifuge Tube	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.43/6.50/10	ASTMD7979-19M	05/14/25 12:30	CED	
Mercury Digestion	Completed	E245.1	05/13/25 11:45	CTV	
Metal Digestion	Completed	SW3015A	05/13/25 09:05	JRH	
PNA Extraction	Completed	SW3510C	05/15/25 10:30	JWR	

Metals

Method: E200.8, Run Date: 05/13/25 12:06, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	Not detected	2		ug/L	5	7440-38-2	
Cadmium	Not detected	0.5		ug/L	5	7440-43-9	
Lead	Not detected	3		ug/L	5	7439-92-1	
Selenium	Not detected	5		ug/L	5	7782-49-2	

Method: E245.1, Run Date: 05/13/25 15:01, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.2		ug/L	1	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatic Hydrocarbon, Method: SW8270D, Run Date: 05/15/25 19:37, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	5		ug/L	2	83-32-9	
Acenaphthylene	Not detected	5		ug/L	2	208-96-8	
Anthracene	Not detected	5		ug/L	2	120-12-7	
Benzo(a)anthracene	Not detected	1		ug/L	2	56-55-3	
Benzo(a)pyrene	Not detected	1		ug/L	2	50-32-8	
Benzo(b)fluoranthene	Not detected	1		ug/L	2	205-99-2	
Benzo(k)fluoranthene	Not detected	1		ug/L	2	207-08-9	
Benzo(ghi)perylene	Not detected	1		ug/L	2	191-24-2	
Chrysene	Not detected	1		ug/L	2	218-01-9	
Dibenzo(ah)anthracene	Not detected	2		ug/L	2	53-70-3	
Fluoranthene	Not detected	1		ug/L	2	206-44-0	
Fluorene	Not detected	5		ug/L	2	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	2		ug/L	2	193-39-5	
Naphthalene	Not detected	5		ug/L	2	91-20-3	
Phenanthrene	Not detected	2		ug/L	2	85-01-8	
Pyrene	Not detected	5		ug/L	2	129-00-0	
2-Methylnaphthalene	Not detected	5		ug/L	2	91-57-6	
1-Methylnaphthalene	Not detected	5		ug/L	2	90-12-0	



Analytical Laboratory Report

Lab Sample ID: S74399.10 (continued)

Sample Tag: MW-9

Organics

40 PFAs, Method: ASTMD7979-19M, Run Date: 05/15/25 02:18, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	0.013	0.01		ug/L	2.03	375-22-4	
PFPeA*	0.027	0.0041		ug/L	2.03	2706-90-3	
4:2 FTSA*	Not detected	0.0020		ug/L	2.03	757124-72-4	
PFHxA*	0.031	0.0020		ug/L	2.03	307-24-4	
PFBS*	0.46	0.0020		ug/L	2.03	375-73-5	
PFHpA*	0.0042	0.0020		ug/L	2.03	375-85-9	
PFPeS*	Not detected	0.0020		ug/L	2.03	2706-91-4	
6:2 FTSA*	Not detected	0.0020		ug/L	2.03	27619-97-2	
PFOA*	0.0062	0.0020		ug/L	2.03	335-67-1	
PFHxS*	Not detected	0.0020		ug/L	2.03	355-46-4	
PFHxS-LN*	Not detected	0.0020		ug/L	2.03	355-46-4-LN	
PFHxS-BR*	Not detected	0.0020		ug/L	2.03	355-46-4-BR	
PFNA*	Not detected	0.0020		ug/L	2.03	375-95-1	
8:2 FTSA*	Not detected	0.0020		ug/L	2.03	39108-34-4	
PFHpS*	Not detected	0.0020		ug/L	2.03	375-92-8	
PFDA*	Not detected	0.0020		ug/L	2.03	335-76-2	
N-MeFOSAA*	Not detected	0.0020		ug/L	2.03	2355-31-9	
EtFOSAA*	Not detected	0.0041		ug/L	2.03	2991-50-6	
PFOS*	0.0051	0.0020		ug/L	2.03	1763-23-1	
PFOS-LN*	0.0035	0.0020		ug/L	2.03	1763-23-1-LN	
PFOS-BR*	Not detected	0.0020		ug/L	2.03	1763-23-1-BR	
PFUnDA*	Not detected	0.0020		ug/L	2.03	2058-94-8	
PFNS*	Not detected	0.0020		ug/L	2.03	68259-12-1	
PFDODA*	Not detected	0.0020		ug/L	2.03	307-55-1	
PFDS*	Not detected	0.0020		ug/L	2.03	335-77-3	
PFTTrDA*	Not detected	0.0020		ug/L	2.03	72629-94-8	
FOSA*	Not detected	0.0020		ug/L	2.03	754-91-6	
PFTeDA*	Not detected	0.0041		ug/L	2.03	376-06-7	
11CI-PF3OUdS*	Not detected	0.0020		ug/L	2.03	763051-92-9	
9CI-PF3ONS*	Not detected	0.0020		ug/L	2.03	756426-58-1	
ADONA*	Not detected	0.0020		ug/L	2.03	919005-14-4	
HFPO-DA*	Not detected	0.01		ug/L	2.03	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	0.01		ug/L	2.03	812-70-4	
FPePA (5:3 FTCA)*	Not detected	0.01		ug/L	2.03	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	0.01		ug/L	2.03	356-02-5	
NFDHA*	Not detected	0.0020		ug/L	2.03	151772-58-6	
PFEESA*	Not detected	0.0020		ug/L	2.03	113507-82-7	
PFMBA*	Not detected	0.0020		ug/L	2.03	863090-89-5	
PFMPA*	Not detected	0.0020		ug/L	2.03	377-73-1	
NMeFOSAM*	Not detected	0.0020		ug/L	2.03	31506-32-8	
NMeFOSE*	Not detected	0.0041		ug/L	2.03	24448-09-7	
NEtFOSAM*	Not detected	0.0020		ug/L	2.03	4151-50-2	
NEtFOSE*	Not detected	0.0041		ug/L	2.03	1691-99-2	
PFDoS*	Not detected	0.0041		ug/L	2.03	79780-39-5	



Analytical Laboratory Report

Lab Sample ID: S74399.11

Sample Tag: MW-10

Collected Date/Time: 05/09/2025 10:55

Matrix: Groundwater

COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Amber	None	Yes	3.2	IR
1	125mL Plastic	HNO3	Yes	3.2	IR
1	15mL Centrifuge Tube	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.13/6.42/10	ASTMD7979-19M	05/14/25 12:30	CED	
Mercury Digestion	Completed	E245.1	05/13/25 11:45	CTV	
Metal Digestion	Completed	SW3015A	05/13/25 09:05	JRH	

Metals

Method: E200.8, Run Date: 05/13/25 12:08, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	Not detected	2		ug/L	5	7440-38-2	
Cadmium	Not detected	0.5		ug/L	5	7440-43-9	
Lead	Not detected	3		ug/L	5	7439-92-1	
Selenium	Not detected	5		ug/L	5	7782-49-2	

Method: E245.1, Run Date: 05/13/25 15:11, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.2		ug/L	1	7439-97-6	

Organics

40 PFAs, Method: ASTMD7979-19M, Run Date: 05/15/25 02:38, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	0.069	0.011		ug/L	2.12	375-22-4	
PFPeA*	0.086	0.0042		ug/L	2.12	2706-90-3	
4:2 FTSA*	Not detected	0.0021		ug/L	2.12	757124-72-4	
PFHxA*	0.027	0.0021		ug/L	2.12	307-24-4	
PFBS*	0.55	0.0021		ug/L	2.12	375-73-5	
PFHpA*	Not detected	0.0021		ug/L	2.12	375-85-9	
PFPeS*	Not detected	0.0021		ug/L	2.12	2706-91-4	
6:2 FTSA*	Not detected	0.0021		ug/L	2.12	27619-97-2	
PFOA*	Not detected	0.0021		ug/L	2.12	335-67-1	
PFHxS*	0.0025	0.0021		ug/L	2.12	355-46-4	
PFHxS-LN*	Not detected	0.0021		ug/L	2.12	355-46-4-LN	
PFHxS-BR*	Not detected	0.0021		ug/L	2.12	355-46-4-BR	
PFNA*	Not detected	0.0021		ug/L	2.12	375-95-1	
8:2 FTSA*	Not detected	0.0021		ug/L	2.12	39108-34-4	
PFHpS*	Not detected	0.0021		ug/L	2.12	375-92-8	
PFDA*	Not detected	0.0021		ug/L	2.12	335-76-2	
N-MeFOSAA*	Not detected	0.0021		ug/L	2.12	2355-31-9	
EtFOSAA*	Not detected	0.0042		ug/L	2.12	2991-50-6	
PFOS*	Not detected	0.0021		ug/L	2.12	1763-23-1	
PFOS-LN*	Not detected	0.0021		ug/L	2.12	1763-23-1-LN	
PFOS-BR*	Not detected	0.0021		ug/L	2.12	1763-23-1-BR	



Analytical Laboratory Report

Lab Sample ID: S74399.11 (continued)

Sample Tag: MW-10

40 PFAs, Method: ASTMD7979-19M, Run Date: 05/15/25 02:38, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFUnDA*	Not detected	0.0021		ug/L	2.12	2058-94-8	
PFNS*	Not detected	0.0021		ug/L	2.12	68259-12-1	
PFDODA*	Not detected	0.0021		ug/L	2.12	307-55-1	
PFDS*	Not detected	0.0021		ug/L	2.12	335-77-3	
PFTTrDA*	Not detected	0.0021		ug/L	2.12	72629-94-8	
FOSA*	Not detected	0.0021		ug/L	2.12	754-91-6	
PFTeDA*	Not detected	0.0042		ug/L	2.12	376-06-7	
11CI-PF3OUdS*	Not detected	0.0021		ug/L	2.12	763051-92-9	
9CI-PF3ONS*	Not detected	0.0021		ug/L	2.12	756426-58-1	
ADONA*	Not detected	0.0021		ug/L	2.12	919005-14-4	
HFPO-DA*	Not detected	0.011		ug/L	2.12	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	0.011		ug/L	2.12	812-70-4	
FPePA (5:3 FTCA)*	Not detected	0.011		ug/L	2.12	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	0.011		ug/L	2.12	356-02-5	
NFDHA*	Not detected	0.0021		ug/L	2.12	151772-58-6	
PFEESA*	Not detected	0.0021		ug/L	2.12	113507-82-7	
PFMBA*	Not detected	0.0021		ug/L	2.12	863090-89-5	
PFMPA*	Not detected	0.0021		ug/L	2.12	377-73-1	
NMeFOSAM*	Not detected	0.0021		ug/L	2.12	31506-32-8	
NMeFOSE*	Not detected	0.0042		ug/L	2.12	24448-09-7	
NEtFOSAM*	Not detected	0.0021		ug/L	2.12	4151-50-2	
NEtFOSE*	Not detected	0.0042		ug/L	2.12	1691-99-2	
PFDoS*	Not detected	0.0042		ug/L	2.12	79780-39-5	



Analytical Laboratory Report

Lab Sample ID: S74399.12

Sample Tag: SB-11 (2.5-3')

Collected Date/Time: 05/09/2025 09:45

Matrix: Soil

COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	11.183/11	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	94	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:37, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	1,160	200		ug/kg	221	7440-38-2	
Barium	20,100	1,000		ug/kg	221	7440-39-3	
Cadmium	Not detected	200		ug/kg	221	7440-43-9	
Chromium	3,150	500		ug/kg	221	7440-47-3	
Copper	1,290	500		ug/kg	221	7440-50-8	
Lead	2,400	300		ug/kg	221	7439-92-1	
Selenium	Not detected	400		ug/kg	221	7782-49-2	
Silver	Not detected	200		ug/kg	221	7440-22-4	
Zinc	6,420	500		ug/kg	221	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:14, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	60	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 20:14, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.12 (continued)

Sample Tag: SB-11 (2.5-3')

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 20:14, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 22:57, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	55.5	60-29-7	
Acetone	Not detected	1,000		ug/kg	55.5	67-64-1	
Methyl iodide	Not detected	100		ug/kg	55.5	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	55.5	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	55.5	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	55.5	107-13-1	
2-Butanone (MEK)	Not detected	830		ug/kg	55.5	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	55.5	75-71-8	
Chloromethane	Not detected	300		ug/kg	55.5	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	55.5	75-01-4	
Bromomethane	Not detected	200		ug/kg	55.5	74-83-9	
Chloroethane	Not detected	300		ug/kg	55.5	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	55.5	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	55.5	75-35-4	
Methylene chloride	Not detected	100		ug/kg	55.5	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	55.5	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	55.5	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	55.5	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	55.5	109-99-9	
Chloroform	Not detected	60		ug/kg	55.5	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	55.5	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	55.5	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	55.5	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	55.5	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	55.5	56-23-5	
Benzene	Not detected	60		ug/kg	55.5	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	55.5	107-06-2	
Trichloroethene	Not detected	60		ug/kg	55.5	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	55.5	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	55.5	75-27-4	
Dibromomethane	Not detected	300		ug/kg	55.5	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	55.5	10061-01-5	
Toluene	Not detected	60		ug/kg	55.5	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	55.5	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	55.5	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	55.5	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	55.5	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	55.5	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	55.5	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.12 (continued)
Sample Tag: SB-11 (2.5-3')

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 22:57, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	60		ug/kg	55.5	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	55.5	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	55.5	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	55.5		
o-Xylene	Not detected	60		ug/kg	55.5	95-47-6	
Styrene	Not detected	60		ug/kg	55.5	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	55.5	98-82-8	
Bromoform	Not detected	100		ug/kg	55.5	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	55.5	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	55.5	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	55.5	103-65-1	
Bromobenzene	Not detected	100		ug/kg	55.5	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	55.5	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	55.5	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	55.5	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	55.5	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	55.5	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	55.5	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	55.5	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	55.5	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	55.5	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	55.5	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	55.5	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	55.5	96-12-8	
1,2,4-Trichlorobenzene	Not detected	370		ug/kg	55.5	120-82-1	
1,2,3-Trichlorobenzene	Not detected	370		ug/kg	55.5	87-61-6	
Naphthalene	Not detected	300		ug/kg	55.5	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	55.5	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.13

Sample Tag: SB-12 (3-3.5)

Collected Date/Time: 05/09/2025 10:05

Matrix: Soil

COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	10.956/10	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	79	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:39, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	1,110	200		ug/kg	266	7440-38-2	
Barium	17,600	1,000		ug/kg	266	7440-39-3	
Cadmium	Not detected	200		ug/kg	266	7440-43-9	
Chromium	5,640	500		ug/kg	266	7440-47-3	
Copper	2,090	500		ug/kg	266	7440-50-8	
Lead	4,830	300		ug/kg	266	7439-92-1	
Selenium	Not detected	400		ug/kg	266	7782-49-2	
Silver	Not detected	200		ug/kg	266	7440-22-4	
Zinc	10,300	500		ug/kg	266	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:18, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	69	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 20:37, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.13 (continued)

Sample Tag: SB-12 (3-3.5)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 20:37, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 17:07, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	71.1	60-29-7	
Acetone	Not detected	1,000		ug/kg	71.1	67-64-1	
Methyl iodide	Not detected	100		ug/kg	71.1	74-88-4	
Carbon disulfide	Not detected	400		ug/kg	71.1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	71.1	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	71.1	107-13-1	
2-Butanone (MEK)	Not detected	1,100		ug/kg	71.1	78-93-3	
Dichlorodifluoromethane	Not detected	400		ug/kg	71.1	75-71-8	
Chloromethane	Not detected	400		ug/kg	71.1	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	71.1	75-01-4	
Bromomethane	Not detected	300		ug/kg	71.1	74-83-9	
Chloroethane	Not detected	400		ug/kg	71.1	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	71.1	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	71.1	75-35-4	
Methylene chloride	Not detected	100		ug/kg	71.1	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	71.1	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	71.1	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	71.1	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	71.1	109-99-9	
Chloroform	Not detected	70		ug/kg	71.1	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	71.1	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	71.1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	4,000		ug/kg	71.1	108-10-1	
2-Hexanone	Not detected	4,000		ug/kg	71.1	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	71.1	56-23-5	
Benzene	Not detected	70		ug/kg	71.1	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	71.1	107-06-2	
Trichloroethene	Not detected	70		ug/kg	71.1	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	71.1	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	71.1	75-27-4	
Dibromomethane	Not detected	400		ug/kg	71.1	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	71.1	10061-01-5	
Toluene	Not detected	70		ug/kg	71.1	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	71.1	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	71.1	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	71.1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	71.1	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	71.1	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	71.1	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.13 (continued)
Sample Tag: SB-12 (3-3.5)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 17:07, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	70		ug/kg	71.1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	71.1	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	71.1	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	71.1		
o-Xylene	Not detected	70		ug/kg	71.1	95-47-6	
Styrene	Not detected	70		ug/kg	71.1	100-42-5	
Isopropylbenzene	Not detected	400		ug/kg	71.1	98-82-8	
Bromoform	Not detected	100		ug/kg	71.1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	71.1	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	71.1	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	71.1	103-65-1	
Bromobenzene	Not detected	100		ug/kg	71.1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	71.1	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	71.1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	71.1	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	71.1	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	71.1	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	71.1	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	71.1	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	71.1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	71.1	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	71.1	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	71.1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	400		ug/kg	71.1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	470		ug/kg	71.1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	470		ug/kg	71.1	87-61-6	
Naphthalene	Not detected	400		ug/kg	71.1	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	71.1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.14

Sample Tag: SB-12 (1-2)

Collected Date/Time: 05/09/2025 10:26

Matrix: Soil

COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	11.173/11	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	87	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:41, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	1,280	200		ug/kg	246	7440-38-2	
Barium	20,000	1,000		ug/kg	246	7440-39-3	
Cadmium	Not detected	200		ug/kg	246	7440-43-9	
Chromium	2,690	500		ug/kg	246	7440-47-3	
Copper	1,680	500		ug/kg	246	7440-50-8	
Lead	6,120	300		ug/kg	246	7439-92-1	
Selenium	Not detected	400		ug/kg	246	7782-49-2	
Silver	Not detected	200		ug/kg	246	7440-22-4	
Zinc	12,000	500		ug/kg	246	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:21, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	64	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 21:01, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.14 (continued)

Sample Tag: SB-12 (1-2)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 21:01, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 17:31, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	64.1	60-29-7	
Acetone	Not detected	1,000		ug/kg	64.1	67-64-1	
Methyl iodide	Not detected	100		ug/kg	64.1	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	64.1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	64.1	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	64.1	107-13-1	
2-Butanone (MEK)	Not detected	960		ug/kg	64.1	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	64.1	75-71-8	
Chloromethane	Not detected	300		ug/kg	64.1	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	64.1	75-01-4	
Bromomethane	Not detected	300		ug/kg	64.1	74-83-9	
Chloroethane	Not detected	300		ug/kg	64.1	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	64.1	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	64.1	75-35-4	
Methylene chloride	Not detected	100		ug/kg	64.1	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	64.1	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	64.1	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	64.1	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	64.1	109-99-9	
Chloroform	Not detected	60		ug/kg	64.1	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	64.1	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	64.1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	64.1	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	64.1	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	64.1	56-23-5	
Benzene	Not detected	60		ug/kg	64.1	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	64.1	107-06-2	
Trichloroethene	Not detected	60		ug/kg	64.1	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	64.1	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	64.1	75-27-4	
Dibromomethane	Not detected	300		ug/kg	64.1	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	64.1	10061-01-5	
Toluene	Not detected	60		ug/kg	64.1	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	64.1	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	64.1	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	64.1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	64.1	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	64.1	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	64.1	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.14 (continued)
Sample Tag: SB-12 (1-2)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 17:31, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	60		ug/kg	64.1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	64.1	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	64.1	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	64.1		
o-Xylene	Not detected	60		ug/kg	64.1	95-47-6	
Styrene	Not detected	60		ug/kg	64.1	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	64.1	98-82-8	
Bromoform	Not detected	100		ug/kg	64.1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	64.1	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	64.1	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	64.1	103-65-1	
Bromobenzene	Not detected	100		ug/kg	64.1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	64.1	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	64.1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	64.1	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	64.1	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	64.1	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	64.1	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	64.1	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	64.1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	64.1	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	64.1	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	64.1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	64.1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	420		ug/kg	64.1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	420		ug/kg	64.1	87-61-6	
Naphthalene	Not detected	300		ug/kg	64.1	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	64.1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.15
Sample Tag: SB-13 (3.5-4)
Collected Date/Time: 05/09/2025 10:13
Matrix: Soil
COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	10.132/10	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	86	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 13:05, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	2,260	200		ug/kg	250	7440-38-2	
Barium	22,500	1,000		ug/kg	250	7440-39-3	
Cadmium	Not detected	200		ug/kg	250	7440-43-9	
Chromium	5,970	500		ug/kg	250	7440-47-3	
Copper	3,380	500		ug/kg	250	7440-50-8	
Lead	3,350	300		ug/kg	250	7439-92-1	
Selenium	Not detected	400		ug/kg	250	7782-49-2	
Silver	Not detected	200		ug/kg	250	7440-22-4	
Zinc	12,300	500		ug/kg	250	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:24, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	64	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 21:24, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.15 (continued)

Sample Tag: SB-13 (3.5-4)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 21:24, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 17:55, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	65.5	60-29-7	
Acetone	1,000	1,000		ug/kg	65.5	67-64-1	
Methyl iodide	Not detected	100		ug/kg	65.5	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	65.5	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	65.5	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	65.5	107-13-1	
2-Butanone (MEK)	Not detected	980		ug/kg	65.5	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	65.5	75-71-8	
Chloromethane	Not detected	300		ug/kg	65.5	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	65.5	75-01-4	
Bromomethane	Not detected	300		ug/kg	65.5	74-83-9	
Chloroethane	Not detected	300		ug/kg	65.5	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	65.5	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	65.5	75-35-4	
Methylene chloride	Not detected	100		ug/kg	65.5	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	65.5	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	65.5	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	65.5	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	65.5	109-99-9	
Chloroform	Not detected	70		ug/kg	65.5	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	65.5	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	65.5	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	65.5	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	65.5	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	65.5	56-23-5	
Benzene	Not detected	70		ug/kg	65.5	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	65.5	107-06-2	
Trichloroethene	Not detected	70		ug/kg	65.5	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	65.5	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	65.5	75-27-4	
Dibromomethane	Not detected	300		ug/kg	65.5	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	65.5	10061-01-5	
Toluene	Not detected	70		ug/kg	65.5	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	65.5	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	65.5	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	65.5	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	65.5	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	65.5	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	65.5	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.15 (continued)
Sample Tag: SB-13 (3.5-4)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 17:55, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	70		ug/kg	65.5	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	65.5	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	65.5	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	65.5		
o-Xylene	Not detected	70		ug/kg	65.5	95-47-6	
Styrene	Not detected	70		ug/kg	65.5	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	65.5	98-82-8	
Bromoform	Not detected	100		ug/kg	65.5	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	65.5	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	65.5	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	65.5	103-65-1	
Bromobenzene	Not detected	100		ug/kg	65.5	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	65.5	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	65.5	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	65.5	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	65.5	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	65.5	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	65.5	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	65.5	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	65.5	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	65.5	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	65.5	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	65.5	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	65.5	96-12-8	
1,2,4-Trichlorobenzene	Not detected	430		ug/kg	65.5	120-82-1	
1,2,3-Trichlorobenzene	Not detected	430		ug/kg	65.5	87-61-6	
Naphthalene	Not detected	300		ug/kg	65.5	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	65.5	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.16

Sample Tag: SB-14 (3.5-4)

Collected Date/Time: 05/09/2025 09:30

Matrix: Soil

COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	10.044/10	SW5035A	05/13/25 11:48	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	88	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 13:07, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	790	200		ug/kg	240	7440-38-2	
Barium	21,300	1,000		ug/kg	240	7440-39-3	
Cadmium	Not detected	200		ug/kg	240	7440-43-9	
Chromium	2,510	500		ug/kg	240	7440-47-3	
Copper	970	500		ug/kg	240	7440-50-8	
Lead	2,350	300		ug/kg	240	7439-92-1	
Selenium	Not detected	400		ug/kg	240	7782-49-2	
Silver	Not detected	200		ug/kg	240	7440-22-4	
Zinc	10,400	500		ug/kg	240	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:28, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	64	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 21:47, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.16 (continued)

Sample Tag: SB-14 (3.5-4)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 21:47, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/13/25 15:36, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	63.4	60-29-7	x
Acetone	Not detected	1,000		ug/kg	63.4	67-64-1	x
Methyl iodide	Not detected	100		ug/kg	63.4	74-88-4	x
Carbon disulfide	Not detected	300		ug/kg	63.4	75-15-0	x
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	63.4	1634-04-4	x
Acrylonitrile	Not detected	100		ug/kg	63.4	107-13-1	x
2-Butanone (MEK)	Not detected	950		ug/kg	63.4	78-93-3	x
Dichlorodifluoromethane	Not detected	300		ug/kg	63.4	75-71-8	x
Chloromethane	Not detected	300		ug/kg	63.4	74-87-3	x
Vinyl chloride	Not detected	60		ug/kg	63.4	75-01-4	x
Bromomethane	Not detected	300		ug/kg	63.4	74-83-9	x
Chloroethane	Not detected	300		ug/kg	63.4	75-00-3	x
Trichlorofluoromethane	Not detected	100		ug/kg	63.4	75-69-4	x
1,1-Dichloroethene	Not detected	60		ug/kg	63.4	75-35-4	x
Methylene chloride	Not detected	100		ug/kg	63.4	75-09-2	x
trans-1,2-Dichloroethene	Not detected	60		ug/kg	63.4	156-60-5	x
1,1-Dichloroethane	Not detected	60		ug/kg	63.4	75-34-3	x
cis-1,2-Dichloroethene	Not detected	60		ug/kg	63.4	156-59-2	x
Tetrahydrofuran	Not detected	1,000		ug/kg	63.4	109-99-9	x
Chloroform	Not detected	60		ug/kg	63.4	67-66-3	x
Bromochloromethane	Not detected	100		ug/kg	63.4	74-97-5	x
1,1,1-Trichloroethane	Not detected	60		ug/kg	63.4	71-55-6	x
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	63.4	108-10-1	x
2-Hexanone	Not detected	3,000		ug/kg	63.4	591-78-6	x
Carbon tetrachloride	Not detected	60		ug/kg	63.4	56-23-5	x
Benzene	Not detected	60		ug/kg	63.4	71-43-2	x
1,2-Dichloroethane	Not detected	60		ug/kg	63.4	107-06-2	x
Trichloroethene	Not detected	60		ug/kg	63.4	79-01-6	x
1,2-Dichloropropane	Not detected	60		ug/kg	63.4	78-87-5	x
Bromodichloromethane	Not detected	100		ug/kg	63.4	75-27-4	x
Dibromomethane	Not detected	300		ug/kg	63.4	74-95-3	x
cis-1,3-Dichloropropene	Not detected	60		ug/kg	63.4	10061-01-5	x
Toluene	Not detected	60		ug/kg	63.4	108-88-3	x
trans-1,3-Dichloropropene	Not detected	60		ug/kg	63.4	10061-02-6	x
1,1,2-Trichloroethane	Not detected	60		ug/kg	63.4	79-00-5	x
Tetrachloroethene	Not detected	60		ug/kg	63.4	127-18-4	x
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	63.4	110-57-6	x
Dibromochloromethane	Not detected	100		ug/kg	63.4	124-48-1	x

x-Preserved from bulk sample



Analytical Laboratory Report

Lab Sample ID: S74399.16 (continued)

Sample Tag: SB-14 (3.5-4)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/13/25 15:36, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2-Dibromoethane	Not detected	30		ug/kg	63.4	106-93-4	Mx
Chlorobenzene	Not detected	60		ug/kg	63.4	108-90-7	x
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	63.4	630-20-6	x
Ethylbenzene	Not detected	60		ug/kg	63.4	100-41-4	x
p,m-Xylene	Not detected	100		ug/kg	63.4		x
o-Xylene	Not detected	60		ug/kg	63.4	95-47-6	x
Styrene	Not detected	60		ug/kg	63.4	100-42-5	x
Isopropylbenzene	Not detected	300		ug/kg	63.4	98-82-8	x
Bromoform	Not detected	100		ug/kg	63.4	75-25-2	x
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	63.4	79-34-5	x
1,2,3-Trichloropropane	Not detected	100		ug/kg	63.4	96-18-4	x
n-Propylbenzene	Not detected	60		ug/kg	63.4	103-65-1	x
Bromobenzene	Not detected	100		ug/kg	63.4	108-86-1	x
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	63.4	108-67-8	x
tert-Butylbenzene	Not detected	60		ug/kg	63.4	98-06-6	x
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	63.4	95-63-6	x
sec-Butylbenzene	Not detected	60		ug/kg	63.4	135-98-8	x
p-Isopropyltoluene	Not detected	100		ug/kg	63.4	99-87-6	x
1,3-Dichlorobenzene	Not detected	100		ug/kg	63.4	541-73-1	x
1,4-Dichlorobenzene	Not detected	100		ug/kg	63.4	106-46-7	x
1,2-Dichlorobenzene	Not detected	100		ug/kg	63.4	95-50-1	x
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	63.4	526-73-8	x
n-Butylbenzene	Not detected	60		ug/kg	63.4	104-51-8	x
Hexachloroethane	Not detected	400		ug/kg	63.4	67-72-1	x
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	63.4	96-12-8	x
1,2,4-Trichlorobenzene	Not detected	420		ug/kg	63.4	120-82-1	x
1,2,3-Trichlorobenzene	Not detected	420		ug/kg	63.4	87-61-6	x
Naphthalene	Not detected	300		ug/kg	63.4	91-20-3	x
2-Methylnaphthalene	Not detected	100		ug/kg	63.4	91-57-6	x

M-Result reported to MDL not RDL x-Preserved from bulk sample



Analytical Laboratory Report

Lab Sample ID: S74399.17
Sample Tag: SB-14-GW
Collected Date/Time: 05/09/2025 09:45
Matrix: Groundwater
COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Amber	None	Yes	3.2	IR
1	125mL Plastic	HNO3	Yes	3.2	IR
2	40mL Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Mercury Digestion	Completed	E245.1	05/13/25 11:45	CTV	
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	
Metal Digestion	Completed	SW3015A	05/13/25 09:05	JRH	
PNA Extraction	Completed	SW3510C	05/15/25 10:30	JWR	

Metals

Method: E200.8, Run Date: 05/13/25 12:10, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	2	2		ug/L	5	7440-38-2	
Barium	27	5		ug/L	5	7440-39-3	
Cadmium	Not detected	0.5		ug/L	5	7440-43-9	
Chromium	Not detected	5		ug/L	5	7440-47-3	
Copper	Not detected	5		ug/L	5	7440-50-8	
Lead	Not detected	3		ug/L	5	7439-92-1	
Selenium	Not detected	5		ug/L	5	7782-49-2	
Silver	Not detected	0.5		ug/L	5	7440-22-4	
Zinc	7	5		ug/L	5	7440-66-6	

Method: E245.1, Run Date: 05/13/25 15:14, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.2		ug/L	1	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatic Hydrocarbon, Method: SW8270D, Run Date: 05/15/25 19:59, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	5		ug/L	2	83-32-9	
Acenaphthylene	Not detected	5		ug/L	2	208-96-8	
Anthracene	Not detected	5		ug/L	2	120-12-7	
Benzo(a)anthracene	Not detected	1		ug/L	2	56-55-3	
Benzo(a)pyrene	Not detected	1		ug/L	2	50-32-8	
Benzo(b)fluoranthene	Not detected	1		ug/L	2	205-99-2	
Benzo(k)fluoranthene	Not detected	1		ug/L	2	207-08-9	
Benzo(ghi)perylene	Not detected	1		ug/L	2	191-24-2	
Chrysene	Not detected	1		ug/L	2	218-01-9	
Dibenzo(ah)anthracene	Not detected	2		ug/L	2	53-70-3	
Fluoranthene	Not detected	1		ug/L	2	206-44-0	
Fluorene	Not detected	5		ug/L	2	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	2		ug/L	2	193-39-5	
Naphthalene	Not detected	5		ug/L	2	91-20-3	
Phenanthrene	Not detected	2		ug/L	2	85-01-8	



Analytical Laboratory Report

Lab Sample ID: S74399.17 (continued)

Sample Tag: SB-14-GW

Polynuclear Aromatic Hydrocarbon, Method: SW8270D, Run Date: 05/15/25 19:59, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Pyrene	Not detected	5		ug/L	2	129-00-0	
2-Methylnaphthalene	Not detected	5		ug/L	2	91-57-6	
1-Methylnaphthalene	Not detected	5		ug/L	2	90-12-0	

Organics

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 05/13/25 05:41, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S74399.17 (continued)

Sample Tag: SB-14-GW

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 05/13/25 05:41, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.18
Sample Tag: SB-4-GW
Collected Date/Time: 05/09/2025 13:02
Matrix: Groundwater
COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125mL Plastic	HNO3	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3015A	05/13/25 09:05	JRH	

Metals

Method: E200.8, Run Date: 05/13/25 12:12, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	Not detected	3		ug/L	5	7439-92-1	



Analytical Laboratory Report

Lab Sample ID: S74399.19
Sample Tag: MW-15
Collected Date/Time: 05/09/2025 14:35
Matrix: Groundwater
COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Amber	None	Yes	3.2	IR
1	125mL Plastic	HNO3	Yes	3.2	IR
1	15mL Centrifuge Tube	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.02/6.42/10	ASTMD7979-19M	05/14/25 12:30	CED	
Mercury Digestion	Completed	E245.1	05/13/25 11:45	CTV	
Metal Digestion	Completed	SW3015A	05/13/25 09:05	JRH	
PNA Extraction	Completed	SW3510C	05/15/25 10:30	JWR	

Metals

Method: E200.8, Run Date: 05/13/25 12:14, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	4	2		ug/L	5	7440-38-2	
Cadmium	Not detected	0.5		ug/L	5	7440-43-9	
Lead	Not detected	3		ug/L	5	7439-92-1	
Selenium	Not detected	5		ug/L	5	7782-49-2	

Method: E245.1, Run Date: 05/13/25 15:17, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.2		ug/L	1	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatic Hydrocarbon, Method: SW8270D, Run Date: 05/15/25 20:22, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	5		ug/L	2	83-32-9	
Acenaphthylene	Not detected	5		ug/L	2	208-96-8	
Anthracene	Not detected	5		ug/L	2	120-12-7	
Benzo(a)anthracene	Not detected	1		ug/L	2	56-55-3	
Benzo(a)pyrene	Not detected	1		ug/L	2	50-32-8	
Benzo(b)fluoranthene	Not detected	1		ug/L	2	205-99-2	
Benzo(k)fluoranthene	Not detected	1		ug/L	2	207-08-9	
Benzo(ghi)perylene	Not detected	1		ug/L	2	191-24-2	
Chrysene	Not detected	1		ug/L	2	218-01-9	
Dibenzo(ah)anthracene	Not detected	2		ug/L	2	53-70-3	
Fluoranthene	Not detected	1		ug/L	2	206-44-0	
Fluorene	Not detected	5		ug/L	2	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	2		ug/L	2	193-39-5	
Naphthalene	Not detected	5		ug/L	2	91-20-3	
Phenanthrene	Not detected	2		ug/L	2	85-01-8	
Pyrene	Not detected	5		ug/L	2	129-00-0	
2-Methylnaphthalene	Not detected	5		ug/L	2	91-57-6	
1-Methylnaphthalene	Not detected	5		ug/L	2	90-12-0	



Analytical Laboratory Report

Lab Sample ID: S74399.19 (continued)

Sample Tag: MW-15

Organics

40 PFAs, Method: ASTMD7979-19M, Run Date: 05/15/25 02:58, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	0.011		ug/L	2.17	375-22-4	
PFPeA*	Not detected	0.0043		ug/L	2.17	2706-90-3	
4:2 FTSA*	Not detected	0.0022		ug/L	2.17	757124-72-4	
PFHxA*	Not detected	0.0022		ug/L	2.17	307-24-4	
PFBS*	0.021	0.0022		ug/L	2.17	375-73-5	
PFHpA*	Not detected	0.0022		ug/L	2.17	375-85-9	
PFPeS*	Not detected	0.0022		ug/L	2.17	2706-91-4	
6:2 FTSA*	Not detected	0.0022		ug/L	2.17	27619-97-2	
PFOA*	Not detected	0.0022		ug/L	2.17	335-67-1	
PFHxS*	Not detected	0.0022		ug/L	2.17	355-46-4	
PFHxS-LN*	Not detected	0.0022		ug/L	2.17	355-46-4-LN	
PFHxS-BR*	Not detected	0.0022		ug/L	2.17	355-46-4-BR	
PFNA*	Not detected	0.0022		ug/L	2.17	375-95-1	
8:2 FTSA*	Not detected	0.0022		ug/L	2.17	39108-34-4	
PFHpS*	Not detected	0.0022		ug/L	2.17	375-92-8	
PFDA*	Not detected	0.0022		ug/L	2.17	335-76-2	
N-MeFOSAA*	Not detected	0.0022		ug/L	2.17	2355-31-9	
EtFOSAA*	Not detected	0.0043		ug/L	2.17	2991-50-6	
PFOS*	Not detected	0.0022		ug/L	2.17	1763-23-1	
PFOS-LN*	Not detected	0.0022		ug/L	2.17	1763-23-1-LN	
PFOS-BR*	Not detected	0.0022		ug/L	2.17	1763-23-1-BR	
PFUnDA*	Not detected	0.0022		ug/L	2.17	2058-94-8	
PFNS*	Not detected	0.0022		ug/L	2.17	68259-12-1	
PFDODA*	Not detected	0.0022		ug/L	2.17	307-55-1	
PFDS*	Not detected	0.0022		ug/L	2.17	335-77-3	
PFTTrDA*	Not detected	0.0022		ug/L	2.17	72629-94-8	
FOSA*	Not detected	0.0022		ug/L	2.17	754-91-6	
PFTeDA*	Not detected	0.0043		ug/L	2.17	376-06-7	
11CI-PF3OUdS*	Not detected	0.0022		ug/L	2.17	763051-92-9	
9CI-PF3ONS*	Not detected	0.0022		ug/L	2.17	756426-58-1	
ADONA*	Not detected	0.0022		ug/L	2.17	919005-14-4	
HFPO-DA*	Not detected	0.011		ug/L	2.17	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	0.011		ug/L	2.17	812-70-4	
FPePA (5:3 FTCA)*	Not detected	0.011		ug/L	2.17	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	0.011		ug/L	2.17	356-02-5	
NFDHA*	Not detected	0.0022		ug/L	2.17	151772-58-6	
PFEESA*	Not detected	0.0022		ug/L	2.17	113507-82-7	
PFMBA*	Not detected	0.0022		ug/L	2.17	863090-89-5	
PFMPA*	Not detected	0.0022		ug/L	2.17	377-73-1	
NMeFOSAM*	Not detected	0.0022		ug/L	2.17	31506-32-8	
NMeFOSE*	Not detected	0.0043		ug/L	2.17	24448-09-7	
NEtFOSAM*	Not detected	0.0022		ug/L	2.17	4151-50-2	
NEtFOSE*	Not detected	0.0043		ug/L	2.17	1691-99-2	
PFDoS*	Not detected	0.0043		ug/L	2.17	79780-39-5	



Analytical Laboratory Report

Lab Sample ID: S74399.20
Sample Tag: DUP-1S
Collected Date/Time: 05/08/2025 00:01
Matrix: Soil
COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	84	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 13:08, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	11,500	300		ug/kg	253	7439-92-1	



Analytical Laboratory Report

Lab Sample ID: S74399.21

Sample Tag: DUP-2S

Collected Date/Time: 05/08/2025 00:01

Matrix: Soil

COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	10.451/10	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	92	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 13:10, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	5,240	200		ug/kg	235	7440-38-2	
Barium	19,600	1,000		ug/kg	235	7440-39-3	
Cadmium	Not detected	200		ug/kg	235	7440-43-9	
Chromium	7,820	500		ug/kg	235	7440-47-3	
Copper	9,330	500		ug/kg	235	7440-50-8	
Lead	8,290	300		ug/kg	235	7439-92-1	
Selenium	Not detected	400		ug/kg	235	7782-49-2	
Silver	Not detected	200		ug/kg	235	7440-22-4	
Zinc	29,600	500		ug/kg	235	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:37, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	60	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 22:10, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.21 (continued)

Sample Tag: DUP-2S

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 22:10, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 18:19, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	56.4	60-29-7	
Acetone	Not detected	1,000		ug/kg	56.4	67-64-1	
Methyl iodide	Not detected	100		ug/kg	56.4	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	56.4	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	56.4	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	56.4	107-13-1	
2-Butanone (MEK)	Not detected	850		ug/kg	56.4	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	56.4	75-71-8	
Chloromethane	Not detected	300		ug/kg	56.4	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	56.4	75-01-4	
Bromomethane	Not detected	200		ug/kg	56.4	74-83-9	
Chloroethane	Not detected	300		ug/kg	56.4	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	56.4	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	56.4	75-35-4	
Methylene chloride	Not detected	100		ug/kg	56.4	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	56.4	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	56.4	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	56.4	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	56.4	109-99-9	
Chloroform	Not detected	60		ug/kg	56.4	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	56.4	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	56.4	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	56.4	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	56.4	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	56.4	56-23-5	
Benzene	Not detected	60		ug/kg	56.4	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	56.4	107-06-2	
Trichloroethene	Not detected	60		ug/kg	56.4	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	56.4	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	56.4	75-27-4	
Dibromomethane	Not detected	300		ug/kg	56.4	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	56.4	10061-01-5	
Toluene	Not detected	60		ug/kg	56.4	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	56.4	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	56.4	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	56.4	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	56.4	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	56.4	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	56.4	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.21 (continued)
Sample Tag: DUP-2S

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 18:19, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	60		ug/kg	56.4	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	56.4	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	56.4	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	56.4		
o-Xylene	Not detected	60		ug/kg	56.4	95-47-6	
Styrene	Not detected	60		ug/kg	56.4	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	56.4	98-82-8	
Bromoform	Not detected	100		ug/kg	56.4	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	56.4	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	56.4	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	56.4	103-65-1	
Bromobenzene	Not detected	100		ug/kg	56.4	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	56.4	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	56.4	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	56.4	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	56.4	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	56.4	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	56.4	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	56.4	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	56.4	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	56.4	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	56.4	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	56.4	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	56.4	96-12-8	
1,2,4-Trichlorobenzene	Not detected	370		ug/kg	56.4	120-82-1	
1,2,3-Trichlorobenzene	Not detected	370		ug/kg	56.4	87-61-6	
Naphthalene	Not detected	300		ug/kg	56.4	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	56.4	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.22

Sample Tag: DUP-1-GW

Collected Date/Time: 05/09/2025 00:01

Matrix: Groundwater

COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Amber	None	Yes	3.2	IR
1	125mL Plastic	HNO3	Yes	3.2	IR
1	15mL Centrifuge Tube	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.08/6.44/10	ASTMD7979-19M	05/14/25 12:30	CED	
Mercury Digestion	Completed	E245.1	05/13/25 11:45	CTV	
Metal Digestion	Completed	SW3015A	05/13/25 09:05	JRH	
PNA Extraction	Completed	SW3510C	05/15/25 10:30	JWR	

Metals

Method: E200.8, Run Date: 05/13/25 12:16, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	Not detected	2		ug/L	5	7440-38-2	
Cadmium	Not detected	0.5		ug/L	5	7440-43-9	
Lead	Not detected	3		ug/L	5	7439-92-1	
Selenium	Not detected	5		ug/L	5	7782-49-2	

Method: E245.1, Run Date: 05/13/25 15:21, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.2		ug/L	1	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatic Hydrocarbon, Method: SW8270D, Run Date: 05/15/25 20:44, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	5		ug/L	2	83-32-9	
Acenaphthylene	Not detected	5		ug/L	2	208-96-8	
Anthracene	Not detected	5		ug/L	2	120-12-7	
Benzo(a)anthracene	Not detected	1		ug/L	2	56-55-3	
Benzo(a)pyrene	Not detected	1		ug/L	2	50-32-8	
Benzo(b)fluoranthene	Not detected	1		ug/L	2	205-99-2	
Benzo(k)fluoranthene	Not detected	1		ug/L	2	207-08-9	
Benzo(ghi)perylene	Not detected	1		ug/L	2	191-24-2	
Chrysene	Not detected	1		ug/L	2	218-01-9	
Dibenzo(ah)anthracene	Not detected	2		ug/L	2	53-70-3	
Fluoranthene	Not detected	1		ug/L	2	206-44-0	
Fluorene	Not detected	5		ug/L	2	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	2		ug/L	2	193-39-5	
Naphthalene	Not detected	5		ug/L	2	91-20-3	
Phenanthrene	Not detected	2		ug/L	2	85-01-8	
Pyrene	Not detected	5		ug/L	2	129-00-0	
2-Methylnaphthalene	Not detected	5		ug/L	2	91-57-6	
1-Methylnaphthalene	Not detected	5		ug/L	2	90-12-0	



Analytical Laboratory Report

Lab Sample ID: S74399.22 (continued)

Sample Tag: DUP-1-GW

Organics

40 PFAs, Method: ASTMD7979-19M, Run Date: 05/15/25 03:18, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	0.011		ug/L	2.16	375-22-4	
PFPeA*	Not detected	0.0043		ug/L	2.16	2706-90-3	
4:2 FTSA*	Not detected	0.0022		ug/L	2.16	757124-72-4	
PFHxA*	Not detected	0.0022		ug/L	2.16	307-24-4	
PFBS*	0.0087	0.0022		ug/L	2.16	375-73-5	
PFHpA*	Not detected	0.0022		ug/L	2.16	375-85-9	
PFPeS*	Not detected	0.0022		ug/L	2.16	2706-91-4	
6:2 FTSA*	Not detected	0.0022		ug/L	2.16	27619-97-2	
PFOA*	Not detected	0.0022		ug/L	2.16	335-67-1	
PFHxS*	Not detected	0.0022		ug/L	2.16	355-46-4	
PFHxS-LN*	Not detected	0.0022		ug/L	2.16	355-46-4-LN	
PFHxS-BR*	Not detected	0.0022		ug/L	2.16	355-46-4-BR	
PFNA*	Not detected	0.0022		ug/L	2.16	375-95-1	
8:2 FTSA*	Not detected	0.0022		ug/L	2.16	39108-34-4	
PFHpS*	Not detected	0.0022		ug/L	2.16	375-92-8	
PFDA*	Not detected	0.0022		ug/L	2.16	335-76-2	
N-MeFOSAA*	Not detected	0.0022		ug/L	2.16	2355-31-9	
EtFOSAA*	Not detected	0.0043		ug/L	2.16	2991-50-6	
PFOS*	Not detected	0.0022		ug/L	2.16	1763-23-1	
PFOS-LN*	Not detected	0.0022		ug/L	2.16	1763-23-1-LN	
PFOS-BR*	Not detected	0.0022		ug/L	2.16	1763-23-1-BR	
PFUnDA*	Not detected	0.0022		ug/L	2.16	2058-94-8	
PFNS*	Not detected	0.0022		ug/L	2.16	68259-12-1	
PFDODA*	Not detected	0.0022		ug/L	2.16	307-55-1	
PFDS*	Not detected	0.0022		ug/L	2.16	335-77-3	
PFTTrDA*	Not detected	0.0022		ug/L	2.16	72629-94-8	
FOSA*	Not detected	0.0022		ug/L	2.16	754-91-6	
PFTeDA*	Not detected	0.0043		ug/L	2.16	376-06-7	
11CI-PF3OUdS*	Not detected	0.0022		ug/L	2.16	763051-92-9	
9CI-PF3ONS*	Not detected	0.0022		ug/L	2.16	756426-58-1	
ADONA*	Not detected	0.0022		ug/L	2.16	919005-14-4	
HFPO-DA*	Not detected	0.011		ug/L	2.16	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	0.011		ug/L	2.16	812-70-4	
FPePA (5:3 FTCA)*	Not detected	0.011		ug/L	2.16	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	0.011		ug/L	2.16	356-02-5	
NFDHA*	Not detected	0.0022		ug/L	2.16	151772-58-6	
PFEESA*	Not detected	0.0022		ug/L	2.16	113507-82-7	
PFMBA*	Not detected	0.0022		ug/L	2.16	863090-89-5	
PFMPA*	Not detected	0.0022		ug/L	2.16	377-73-1	
NMeFOSAM*	Not detected	0.0022		ug/L	2.16	31506-32-8	
NMeFOSE*	Not detected	0.0043		ug/L	2.16	24448-09-7	
NEtFOSAM*	Not detected	0.0022		ug/L	2.16	4151-50-2	
NEtFOSE*	Not detected	0.0043		ug/L	2.16	1691-99-2	
PFDoS*	Not detected	0.0043		ug/L	2.16	79780-39-5	



Analytical Laboratory Report

Lab Sample ID: S74399.23
Sample Tag: Methanol Blank
Collected Date/Time: 05/09/2025 00:01
Matrix: Methanol
COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	10.0/10	SW5035A	05/12/25 16:33	ACK	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 18:07, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	50	60-29-7	
Acetone	Not detected	1,000		ug/kg	50	67-64-1	
Methyl iodide	Not detected	100		ug/kg	50	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	50	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	50	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	50	107-13-1	
2-Butanone (MEK)	Not detected	750		ug/kg	50	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	50	75-71-8	
Chloromethane	Not detected	300		ug/kg	50	74-87-3	
Vinyl chloride	Not detected	50		ug/kg	50	75-01-4	
Bromomethane	Not detected	200		ug/kg	50	74-83-9	
Chloroethane	Not detected	300		ug/kg	50	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	50	75-69-4	
1,1-Dichloroethene	Not detected	50		ug/kg	50	75-35-4	
Methylene chloride	Not detected	100		ug/kg	50	75-09-2	
trans-1,2-Dichloroethene	Not detected	50		ug/kg	50	156-60-5	
1,1-Dichloroethane	Not detected	50		ug/kg	50	75-34-3	
cis-1,2-Dichloroethene	Not detected	50		ug/kg	50	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	50	109-99-9	
Chloroform	Not detected	50		ug/kg	50	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	50	74-97-5	
1,1,1-Trichloroethane	Not detected	50		ug/kg	50	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	50	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	50	591-78-6	
Carbon tetrachloride	Not detected	50		ug/kg	50	56-23-5	
Benzene	Not detected	50		ug/kg	50	71-43-2	
1,2-Dichloroethane	Not detected	50		ug/kg	50	107-06-2	
Trichloroethene	Not detected	50		ug/kg	50	79-01-6	
1,2-Dichloropropane	Not detected	50		ug/kg	50	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	50	75-27-4	
Dibromomethane	Not detected	300		ug/kg	50	74-95-3	
cis-1,3-Dichloropropene	Not detected	50		ug/kg	50	10061-01-5	
Toluene	Not detected	50		ug/kg	50	108-88-3	
trans-1,3-Dichloropropene	Not detected	50		ug/kg	50	10061-02-6	
1,1,2-Trichloroethane	Not detected	50		ug/kg	50	79-00-5	
Tetrachloroethene	Not detected	50		ug/kg	50	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	50		ug/kg	50	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.23 (continued)

Sample Tag: Methanol Blank

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 18:07, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	100		ug/kg	50	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	50	106-93-4	M
Chlorobenzene	Not detected	50		ug/kg	50	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	50	630-20-6	
Ethylbenzene	Not detected	50		ug/kg	50	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	50		
o-Xylene	Not detected	50		ug/kg	50	95-47-6	
Styrene	Not detected	50		ug/kg	50	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	50	98-82-8	
Bromoform	Not detected	100		ug/kg	50	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	50		ug/kg	50	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	50	96-18-4	
n-Propylbenzene	Not detected	50		ug/kg	50	103-65-1	
Bromobenzene	Not detected	100		ug/kg	50	108-86-1	
1,3,5-Trimethylbenzene	Not detected	50		ug/kg	50	108-67-8	
tert-Butylbenzene	Not detected	50		ug/kg	50	98-06-6	
1,2,4-Trimethylbenzene	Not detected	50		ug/kg	50	95-63-6	
sec-Butylbenzene	Not detected	50		ug/kg	50	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	50	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	50	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	50	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	50	95-50-1	
1,2,3-Trimethylbenzene	Not detected	50		ug/kg	50	526-73-8	
n-Butylbenzene	Not detected	50		ug/kg	50	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	50	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	50	96-12-8	
1,2,4-Trichlorobenzene	Not detected	330		ug/kg	50	120-82-1	
1,2,3-Trichlorobenzene	Not detected	330		ug/kg	50	87-61-6	
Naphthalene	Not detected	300		ug/kg	50	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	50	91-57-6	

M-Result reported to MDL not RDL

Merit Laboratories Login Checklist

Lab Set ID:S74399

Client:ASTI (ASTI Environmental)

Project: A24-1988.01 2755, and 2990 Tooley Rd, and 0 Bowen Rd.

Submitted:05/12/2025 13:40 Login User: MMC

Attention: Jeremy Efros

Address: ASTI Environmental
10448 Citation Drive, Suite 100
Brighton, MI 48116

Phone: 810-360-9310

FAX:

Email:jefros@asti-env.com

Selection	Description	Note
Sample Receiving		
01.	☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C Thermometer # IR 3.2
02.	☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun
03.	☐ Yes ☒ No ☐ N/A	Samples shipped
04.	☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box
05.	☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked
Chain of Custody		
06.	☒ Yes ☐ No ☐ N/A	COC adequately filled out
07.	☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab
08.	☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC
09.	☐ Yes ☒ No ☐ N/A	Subcontracting needed? Subcontacted to:
Preservation		
10.	☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation
11.	☒ Yes ☐ No ☐ N/A	Completed pH checks on preserved samples? (no VOAs)
12.	☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?
Bottle Conditions		
13.	☒ Yes ☐ No ☐ N/A	All bottles intact
14.	☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used
15.	☒ Yes ☐ No ☐ N/A	Merit bottles used
16.	☒ Yes ☐ No ☐ N/A	Sufficient sample volume received
17.	☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration
18.	☒ Yes ☐ No ☐ N/A	Samples submitted within holding time
19.	☐ Yes ☐ No ☒ N/A	Do water VOC, TOX, DO or Alkalinity bottles contain

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories Bottle Preservation Check

Lab Set ID: S74399 Submitted: 05/12/2025 13:40

Client: ASTI (ASTI Environmental)

Project: A24-1988.01 2755, and 2990 Tooley Rd, and 0 Bowen Rd.

Initial Preservation Check: 05/12/2025 14:56 MMC

Preservation Recheck (E200.8): N/A

Attention: Jeremy Efros

Address: ASTI Environmental
10448 Citation Drive, Suite 100
Brighton, MI 48116

Phone: 810-360-9310

FAX:

Email: jefros@asti-env.com

Sample ID	Bottle / Preservation	pH (Orig)	Add ml	pH (New)	Notes
S74399.08	125mL Plastic HNO3	<2			
S74399.10	125mL Plastic HNO3	<2			
S74399.11	125mL Plastic HNO3	<2			
S74399.17	125mL Plastic HNO3	<2			
S74399.18	125mL Plastic HNO3	<2			
S74399.19	125mL Plastic HNO3	<2			
S74399.22	125mL Plastic HNO3	<2			



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C.O.C. PAGE # 1 OF 2

178350

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Jeremy Efros / Brady Metzger
COMPANY ASTI Environmental
ADDRESS 10448 Citation Dr.
CITY Brighton STATE MI ZIP CODE 48116
PHONE NO. 810-360-9310 CELL NO. 810-599-5464 P.O. NO. _____
MAIL ADDRESS efros@asti-env.com bmetzger@asti-env.com QUOTE NO. _____

CONTACT NAME X SAME
COMPANY _____
ADDRESS _____
CITY _____ STATE _____ ZIP CODE _____
PHONE NO. _____ E-MAIL ADDRESS _____

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME A24-1988.01 2755, and 2990 Tooley Rd, and 0 Bowen Rd. SAMPLER(S) - PLEASE PRINT/SIGN NAME Brady Metzger
JOURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER _____
DELIVERABLES REQUIRED ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER _____

MATRIX W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIFE A=AIR WS=WASTE

Containers & Preservatives

MERIT LAB NO. OR LAB USE ONLY	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives							VOCs	PNA's	MI 10 Metals	PFAS	PCBs	Arsenic	Lead	Cadmium	Mercury	Selenium	Certifications ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES Project Locations ☐ Detroit ☐ New York ☐ Other _____ Special Instructions
	DATE	TIME				NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER											
74399.01	5/8/25	0944	SB-1 (4-4.5)	S	2	1							X	X	X								
.02		0957	SB-1 (14-15)																				
.03		1025	SB-2 (2-2.5)																				
.04		1040	SB-2 (13-14)																				
.05		1100	SB-3 (3.5-4)		1														X				lead only
.06		1200	SB-4 (3.5-4)		1														X				lead only
.07		1240	SB-5 (4-5')																				
.08	5/9/25	1335	MW-7	GW	5	4	1									X		X	X	X	X	X	
.09		1240	MW-8		4	4										X							
.10		1120	MW-9		5	4	1							X			X	X	X	X	X		
.11		1055	MW-10																				
.12		0945	SB-11 (2.5-3')	S	2	1							X	X	X								

RELINQUISHED BY: Brady Metzger ☒ Sampler DATE 5/9/25 TIME 1730
RECEIVED BY: ASTI Cold Storage DATE 5/9/25 TIME 1730
RELINQUISHED BY: ASTI Cold Storage DATE 5/12/25 TIME 850
RECEIVED BY: BR DATE 5/12/25 TIME 850

RELINQUISHED BY: BR DATE 5/12/25 TIME 1341
RECEIVED BY: M Chilcote DATE 5/12/25 TIME 1340
SEAL NO. _____ SEAL INTACT ☐ YES ☐ NO INITIALS _____ NOTES: _____ TEMP. ON ARRIVAL 3.2
SEAL NO. _____ SEAL INTACT ☐ YES ☐ NO INITIALS _____



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C.O.C. PAGE # 2 OF 2

178254

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME: Jeremy Efros / Brady Metzger
COMPANY: ASTI Environmental
ADDRESS: 10448 Citation Dr.
CITY: Brighton STATE: MI ZIP CODE: 48116
PHONE NO.: 810-360-9310 CELL NO.: P.O. NO.:
E-MAIL ADDRESS: jeffros@asti-env.com bmetzger@asti-env.com QUOTE NO.:

CONTACT NAME: X SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME: 24-1488.01 2755 and 2990 Tooley Rd, and 0 Bowen Rd SAMPLER(S) - PLEASE PRINT/SIGN NAME: Brady Metzger
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER
DELIVERABLES REQUIRED ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX: W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIFE A=AIR WS=WASTE

Containers & Preservatives

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	VOCs	PNA	MI 10 Metals	PFAS	Arsenic	Lead	Cadmium	Mercury	Selenium	Certifications ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES Project Locations ☐ Detroit ☐ New York ☐ Other Special Instructions
	DATE	TIME																				
74399.13	5/9/25	1005	SB-12 (3-3.5)	S	2	1							X	X	X							
.14		1026	SB-12 (1-2)																			
.15		1013	SB-13 (3.5-4)																			
.16		0930	SB-14 (3.5-4)																			
.17		0945	SB-14-GW	GW	4	2	1															
.18		1302	SB-4-GW		1													X				
.19		1435	MW-15		5	4	1							X		X	X	X	X	X	X	
.20	5/8/25	-	DUP-1S	S	1	1												X				
.21		-	DUP-2S		2	1				1			X	X	X							
.22	5/9/25	-	DUP-1-GW	GW	5	4	1							X		X	X	X	X	X	X	
.23		-	Methanol Blank		1						1		X									

RELINQUISHED BY: Brady Metzger ☒ Sampler
SIGNATURE/ORGANIZATION: ASTI Cold Storage DATE: 5/9/25 TIME: 1730
RECEIVED BY: ASTI Cold Storage DATE: 5/9/25 TIME: 1730
SIGNATURE/ORGANIZATION: Brady Metzger DATE: 5/12/25 TIME: 850
RELINQUISHED BY: Brady Metzger ☒ Sampler
SIGNATURE/ORGANIZATION: ASTI Cold Storage DATE: 5/12/25 TIME: 850
RECEIVED BY: Brady Metzger DATE: 5/12/25 TIME: 850
SIGNATURE/ORGANIZATION: Brady Metzger DATE: 5/12/25 TIME: 850

RELINQUISHED BY: Brady Metzger
SIGNATURE/ORGANIZATION: Brady Metzger DATE: 5/12/25 TIME: 1340
RECEIVED BY: M. Calabro DATE: 5/12/25 TIME: 1340
SIGNATURE/ORGANIZATION: M. Calabro
SEAL NO.: SEAL INTACT: ☐ YES ☐ NO INITIALS: M. Calabro NOTES: TEMP. ON ARRIVAL: 3.2
SEAL NO.: SEAL INTACT: ☐ YES ☐ NO INITIALS: M. Calabro



Report ID: S74503.01(03)
Generated on 06/05/2025
Replaces report S74503.01(02) generated on 06/03/2025

Report to

Attention: Jeremy Efros
ASTI Environmental
10448 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 810-360-9310 FAX:
Email: jefros@asti-env.com

Additional Contacts: Brad Buswell, Brady Metzger

Report produced by

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Contacts for report questions:
John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S74503.01-S74503.08
Project: A24-1988.01 2755 and 2990 Tooley Rd. and 0 Bowen Rd
Collected Date(s): 05/12/2025 - 05/13/2025
Submitted Date/Time: 05/14/2025 11:10
Sampled by: Brady Metzger
P.O. #:

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Maya Murshak
Technical Director



General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Starred (*) analytes are not NY NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

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Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.

For a specific list of accredited analytes, please feel free to contact the laboratory or visit <https://www.meritlabs.com/certifications>.

Report Narrative

Chromium VI added to sample .06 per client request

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
o	Associated EIS outside of control limits
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
q	Qualifier ion ratio outside of control limits
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Method Summary

Method	Version
SM2540B	Standard Method 2540 B 2020
SW3050B	SW 846 Method 3050B Revision 2 December 1996
SW3546	SW 846 Method 3546 Revision 0 February 2007
SW5035A	SW 846 Method 5035A Revision 1 July 2002
SW5035A/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5035A Revision 1 July 2002
SW6020A	SW 846 Method 6020A Revision 1 February 2007
SW7196A	SW 846 Method 7196A Revision 1 July 1992/SW 846 Method 3060A Revision 1 December 1996
SW7471B	SW 846 Method 7471B Revision 2 February 2007
SW8270D	SW 846 Method 8270D Revision 4 February 2007



Sample Summary (8 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S74503.01	DU-1 (0-1')	Soil	05/12/25 15:20
S74503.02	DU-2 (0-1')	Soil	05/13/25 13:30
S74503.03	DU-3 (0-1')	Soil	05/12/25 11:40
S74503.04	T-1	Soil	05/12/25 00:01
S74503.05	T-2	Soil	05/12/25 00:01
S74503.06	Trench-1	Soil	05/13/25 10:30
S74503.07	Trench-2	Soil	05/13/25 10:40
S74503.08	Methanol Blank	Methanol	05/13/25 00:01



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.01

Sample Tag: DU-1 (0-1')

Collected Date/Time: 05/12/2025 15:20

Matrix: Soil

COC Reference: 178257

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Plastic Bag	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/19/25 10:30	JRH	
PNA Extraction*	Completed	SW3546	05/19/25 14:00	TAW	
Mercury Digestion	Completed	SW7471B	05/20/25 10:45	CTV	

Metals

Method: SW6020A, Run Date: 05/19/25 12:16, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	3.95	0.20		mg/kg	269	7440-38-2	
Cadmium	Not detected	0.20		mg/kg	269	7440-43-9	
Lead	9.43	0.30		mg/kg	269	7439-92-1	
Selenium	Not detected	0.40		mg/kg	269	7782-49-2	

Method: SW7471B, Run Date: 05/20/25 13:16, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	58	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/21/25 15:57, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Other / Misc.

Method: , Run Date: 05/18/25 20:00, Analyst: SRP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Misc. Special Project*	Completed				1		i

i-Incremental sampling



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.02

Sample Tag: DU-2 (0-1')

Collected Date/Time: 05/13/2025 13:30

Matrix: Soil

COC Reference: 178257

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Plastic Bag	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/19/25 10:30	JRH	
PNA Extraction*	Completed	SW3546	05/19/25 14:00	TAW	
Mercury Digestion	Completed	SW7471B	05/20/25 10:45	CTV	

Metals

Method: SW6020A, Run Date: 05/19/25 12:18, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	1.96	0.20		mg/kg	235	7440-38-2	
Cadmium	Not detected	0.20		mg/kg	235	7440-43-9	
Lead	5.79	0.30		mg/kg	235	7439-92-1	
Selenium	Not detected	0.40		mg/kg	235	7782-49-2	

Method: SW7471B, Run Date: 05/20/25 13:26, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	53	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/21/25 16:14, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Other / Misc.

Method: , Run Date: 05/18/25 20:00, Analyst: SRP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Misc. Special Project*	Completed				1		i

i-Incremental sampling



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.03

Sample Tag: DU-3 (0-1')

Collected Date/Time: 05/12/2025 11:40

Matrix: Soil

COC Reference: 178257

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Plastic Bag	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/19/25 10:30	JRH	
PNA Extraction*	Completed	SW3546	05/19/25 14:00	TAW	
Mercury Digestion	Completed	SW7471B	05/20/25 10:45	CTV	

Metals

Method: SW6020A, Run Date: 05/19/25 12:20, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	3.17	0.20		mg/kg	278	7440-38-2	
Cadmium	Not detected	0.20		mg/kg	278	7440-43-9	
Lead	8.18	0.30		mg/kg	278	7439-92-1	
Selenium	Not detected	0.40		mg/kg	278	7782-49-2	

Method: SW7471B, Run Date: 05/20/25 13:29, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	58	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/21/25 16:31, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Other / Misc.

Method: , Run Date: 05/18/25 20:00, Analyst: SRP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Misc. Special Project*	Completed				1		i

i-Incremental sampling



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.04

Sample Tag: T-1

Collected Date/Time: 05/12/2025 00:01

Matrix: Soil

COC Reference: 178257

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Plastic Bag	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/19/25 10:30	JRH	
PNA Extraction*	Completed	SW3546	05/19/25 14:00	TAW	
Mercury Digestion	Completed	SW7471B	05/20/25 10:45	CTV	

Metals

Method: SW6020A, Run Date: 05/19/25 12:22, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	3.05	0.20		mg/kg	248	7440-38-2	
Cadmium	Not detected	0.20		mg/kg	248	7440-43-9	
Lead	9.36	0.30		mg/kg	248	7439-92-1	
Selenium	Not detected	0.40		mg/kg	248	7782-49-2	

Method: SW7471B, Run Date: 05/20/25 13:33, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	62	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/21/25 16:48, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Other / Misc.

Method: , Run Date: 05/18/25 20:00, Analyst: SRP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Misc. Special Project*	Completed				1		i

i-Incremental sampling



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.05

Sample Tag: T-2

Collected Date/Time: 05/12/2025 00:01

Matrix: Soil

COC Reference: 178257

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Plastic Bag	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/19/25 10:30	JRH	
PNA Extraction*	Completed	SW3546	05/19/25 14:00	TAW	
Mercury Digestion	Completed	SW7471B	05/20/25 10:45	CTV	

Metals

Method: SW6020A, Run Date: 05/19/25 12:23, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	3.18	0.20		mg/kg	234	7440-38-2	
Cadmium	Not detected	0.20		mg/kg	234	7440-43-9	
Lead	8.69	0.30		mg/kg	234	7439-92-1	
Selenium	Not detected	0.40		mg/kg	234	7782-49-2	

Method: SW7471B, Run Date: 05/20/25 13:36, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	60	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/21/25 17:05, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Other / Misc.

Method: , Run Date: 05/18/25 20:00, Analyst: SRP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Misc. Special Project*	Completed				1		i

i-Incremental sampling



Lab Sample ID: S74503.06

Sample Tag: Trench-1

Collected Date/Time: 05/13/2025 10:30

Matrix: Soil

COC Reference: 178257

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.6	IR
1	40mL Glass	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/16/25 09:20	JRH	
PNA Extraction*	Completed	SW3546	06/02/25 16:45	TAW	F
Sample wt. (g) / Methanol (ml)*	11.106/11	SW5035A	05/14/25 17:19	ACK	
Mercury Digestion	Completed	SW7471B	05/16/25 12:04	CTV	

Inorganics

Method: SM2540B, Run Date: 05/16/25 13:49, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	83	1		%	1		

Method: SW7196A, Run Date: 06/04/25 13:35, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium VI	Not detected	1		mg/kg	100	18540-29-9	

Metals

Method: SW6020A, Run Date: 05/16/25 12:38, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	6.95	0.20		mg/kg	258	7440-38-2	
Barium	73.3	1.0		mg/kg	258	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	258	7440-43-9	
Chromium	21.3	0.50		mg/kg	258	7440-47-3	
Copper	18.2	0.50		mg/kg	258	7440-50-8	
Lead	8.20	0.30		mg/kg	258	7439-92-1	
Selenium	0.562	0.40		mg/kg	258	7782-49-2	
Silver	Not detected	0.20		mg/kg	258	7440-22-4	
Zinc	48.6	0.50		mg/kg	258	7440-66-6	

Method: SW7471B, Run Date: 05/16/25 15:01, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	69	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 06/03/25 16:33, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	G
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	G
Anthracene	Not detected	300		ug/kg	10	120-12-7	G
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	G
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	G

F-Analysis run outside of holding time

G-Estimated result due to extraction run outside of holding time

Lab Sample ID: S74503.06 (continued)

Sample Tag: Trench-1

Polynuclear Aromatics, Method: SW8270D, Run Date: 06/03/25 16:33, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	G
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	G
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	G
Chrysene	Not detected	300		ug/kg	10	218-01-9	G
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	G
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	G
Fluorene	Not detected	300		ug/kg	10	86-73-7	G
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	G
Naphthalene	Not detected	300		ug/kg	10	91-20-3	G
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	G
Pyrene	Not detected	300		ug/kg	10	129-00-0	G
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	G
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	G

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/15/25 14:38, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	69.9	60-29-7	
Acetone	Not detected	1,000		ug/kg	69.9	67-64-1	
Methyl iodide	Not detected	100		ug/kg	69.9	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	69.9	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	69.9	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	69.9	107-13-1	
2-Butanone (MEK)	Not detected	1,000		ug/kg	69.9	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	69.9	75-71-8	
Chloromethane	Not detected	300		ug/kg	69.9	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	69.9	75-01-4	
Bromomethane	Not detected	300		ug/kg	69.9	74-83-9	
Chloroethane	Not detected	300		ug/kg	69.9	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	69.9	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	69.9	75-35-4	
Methylene chloride	Not detected	100		ug/kg	69.9	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	69.9	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	69.9	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	69.9	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	69.9	109-99-9	
Chloroform	Not detected	70		ug/kg	69.9	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	69.9	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	69.9	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	69.9	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	69.9	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	69.9	56-23-5	
Benzene	Not detected	70		ug/kg	69.9	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	69.9	107-06-2	
Trichloroethene	Not detected	70		ug/kg	69.9	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	69.9	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	69.9	75-27-4	
Dibromomethane	Not detected	300		ug/kg	69.9	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	69.9	10061-01-5	

G-Estimated result due to extraction run outside of holding time



Lab Sample ID: S74503.06 (continued)

Sample Tag: Trench-1

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/15/25 14:38, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Toluene	Not detected	70		ug/kg	69.9	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	69.9	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	69.9	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	69.9	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	69.9	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	69.9	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	69.9	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	69.9	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	69.9	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	69.9	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	69.9		
o-Xylene	Not detected	70		ug/kg	69.9	95-47-6	
Styrene	Not detected	70		ug/kg	69.9	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	69.9	98-82-8	
Bromoform	Not detected	100		ug/kg	69.9	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	69.9	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	69.9	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	69.9	103-65-1	
Bromobenzene	Not detected	100		ug/kg	69.9	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	69.9	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	69.9	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	69.9	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	69.9	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	69.9	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	69.9	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	69.9	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	69.9	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	69.9	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	69.9	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	69.9	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	69.9	96-12-8	
1,2,4-Trichlorobenzene	Not detected	460		ug/kg	69.9	120-82-1	
1,2,3-Trichlorobenzene	Not detected	460		ug/kg	69.9	87-61-6	
Naphthalene	Not detected	300		ug/kg	69.9	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	69.9	91-57-6	

M-Result reported to MDL not RDL



Lab Sample ID: S74503.07

Sample Tag: Trench-2

Collected Date/Time: 05/13/2025 10:40

Matrix: Soil

COC Reference: 178257

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.6	IR
1	40mL Glass	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/16/25 09:20	JRH	
PNA Extraction*	Completed	SW3546	06/02/25 16:45	TAW	F
Sample wt. (g) / Methanol (ml)*	11.409/11	SW5035A	05/14/25 17:19	ACK	
Mercury Digestion	Completed	SW7471B	05/16/25 12:04	CTV	

Inorganics**Method: SM2540B, Run Date: 05/16/25 13:49, Analyst: MAM**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	87	1		%	1		

Metals**Method: SW6020A, Run Date: 05/16/25 12:40, Analyst: JRH**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	6.39	0.20		mg/kg	238	7440-38-2	
Barium	24.7	1.0		mg/kg	238	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	238	7440-43-9	
Chromium	8.42	0.50		mg/kg	238	7440-47-3	
Copper	8.88	0.50		mg/kg	238	7440-50-8	
Lead	4.65	0.30		mg/kg	238	7439-92-1	
Selenium	Not detected	0.40		mg/kg	238	7782-49-2	
Silver	Not detected	0.20		mg/kg	238	7440-22-4	
Zinc	29.3	0.50		mg/kg	238	7440-66-6	

Method: SW7471B, Run Date: 05/16/25 15:04, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	64	7439-97-6	

Organics - Semi-Volatiles**Polynuclear Aromatics, Method: SW8270D, Run Date: 06/03/25 16:50, Analyst: PL**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	G
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	G
Anthracene	Not detected	300		ug/kg	10	120-12-7	G
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	G
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	G
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	G
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	G
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	G
Chrysene	Not detected	300		ug/kg	10	218-01-9	G

F-Analysis run outside of holding time

G-Estimated result due to extraction run outside of holding time

Lab Sample ID: S74503.07 (continued)

Sample Tag: Trench-2

Polynuclear Aromatics, Method: SW8270D, Run Date: 06/03/25 16:50, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	G
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	G
Fluorene	Not detected	300		ug/kg	10	86-73-7	G
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	G
Naphthalene	Not detected	300		ug/kg	10	91-20-3	G
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	G
Pyrene	Not detected	300		ug/kg	10	129-00-0	G
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	G
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	G

Organics - Volatiles
Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/15/25 15:02, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	62.9	60-29-7	
Acetone	Not detected	1,000		ug/kg	62.9	67-64-1	
Methyl iodide	Not detected	100		ug/kg	62.9	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	62.9	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	62.9	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	62.9	107-13-1	
2-Butanone (MEK)	Not detected	940		ug/kg	62.9	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	62.9	75-71-8	
Chloromethane	Not detected	300		ug/kg	62.9	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	62.9	75-01-4	
Bromomethane	Not detected	300		ug/kg	62.9	74-83-9	
Chloroethane	Not detected	300		ug/kg	62.9	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	62.9	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	62.9	75-35-4	
Methylene chloride	Not detected	100		ug/kg	62.9	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	62.9	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	62.9	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	62.9	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	62.9	109-99-9	
Chloroform	Not detected	60		ug/kg	62.9	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	62.9	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	62.9	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	62.9	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	62.9	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	62.9	56-23-5	
Benzene	Not detected	60		ug/kg	62.9	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	62.9	107-06-2	
Trichloroethene	Not detected	60		ug/kg	62.9	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	62.9	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	62.9	75-27-4	
Dibromomethane	Not detected	300		ug/kg	62.9	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	62.9	10061-01-5	
Toluene	Not detected	60		ug/kg	62.9	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	62.9	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	62.9	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	62.9	127-18-4	

G-Estimated result due to extraction run outside of holding time

Lab Sample ID: S74503.07 (continued)

Sample Tag: Trench-2

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/15/25 15:02, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	62.9	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	62.9	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	62.9	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	62.9	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	62.9	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	62.9	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	62.9		
o-Xylene	Not detected	60		ug/kg	62.9	95-47-6	
Styrene	Not detected	60		ug/kg	62.9	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	62.9	98-82-8	
Bromoform	Not detected	100		ug/kg	62.9	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	62.9	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	62.9	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	62.9	103-65-1	
Bromobenzene	Not detected	100		ug/kg	62.9	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	62.9	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	62.9	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	62.9	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	62.9	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	62.9	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	62.9	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	62.9	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	62.9	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	62.9	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	62.9	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	62.9	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	62.9	96-12-8	
1,2,4-Trichlorobenzene	Not detected	420		ug/kg	62.9	120-82-1	
1,2,3-Trichlorobenzene	Not detected	420		ug/kg	62.9	87-61-6	
Naphthalene	Not detected	300		ug/kg	62.9	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	62.9	91-57-6	

M-Result reported to MDL not RDL



Lab Sample ID: S74503.08

Sample Tag: Methanol Blank

Collected Date/Time: 05/13/2025 00:01

Matrix: Methanol

COC Reference: 178257

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40mL Glass	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	10.0/10	SW5035A	05/14/25 17:19	ACK	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/15/25 14:14, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	50	60-29-7	
Acetone	Not detected	1,000		ug/kg	50	67-64-1	
Methyl iodide	Not detected	100		ug/kg	50	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	50	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	50	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	50	107-13-1	
2-Butanone (MEK)	Not detected	750		ug/kg	50	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	50	75-71-8	
Chloromethane	Not detected	300		ug/kg	50	74-87-3	
Vinyl chloride	Not detected	50		ug/kg	50	75-01-4	
Bromomethane	Not detected	200		ug/kg	50	74-83-9	
Chloroethane	Not detected	300		ug/kg	50	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	50	75-69-4	
1,1-Dichloroethene	Not detected	50		ug/kg	50	75-35-4	
Methylene chloride	Not detected	100		ug/kg	50	75-09-2	
trans-1,2-Dichloroethene	Not detected	50		ug/kg	50	156-60-5	
1,1-Dichloroethane	Not detected	50		ug/kg	50	75-34-3	
cis-1,2-Dichloroethene	Not detected	50		ug/kg	50	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	50	109-99-9	
Chloroform	Not detected	50		ug/kg	50	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	50	74-97-5	
1,1,1-Trichloroethane	Not detected	50		ug/kg	50	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	50	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	50	591-78-6	
Carbon tetrachloride	Not detected	50		ug/kg	50	56-23-5	
Benzene	Not detected	50		ug/kg	50	71-43-2	
1,2-Dichloroethane	Not detected	50		ug/kg	50	107-06-2	
Trichloroethene	Not detected	50		ug/kg	50	79-01-6	
1,2-Dichloropropane	Not detected	50		ug/kg	50	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	50	75-27-4	
Dibromomethane	Not detected	300		ug/kg	50	74-95-3	
cis-1,3-Dichloropropene	Not detected	50		ug/kg	50	10061-01-5	
Toluene	Not detected	50		ug/kg	50	108-88-3	
trans-1,3-Dichloropropene	Not detected	50		ug/kg	50	10061-02-6	
1,1,2-Trichloroethane	Not detected	50		ug/kg	50	79-00-5	
Tetrachloroethene	Not detected	50		ug/kg	50	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	50		ug/kg	50	110-57-6	



Lab Sample ID: S74503.08 (continued)

Sample Tag: Methanol Blank

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/15/25 14:14, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	100		ug/kg	50	124-48-1	M
1,2-Dibromoethane	Not detected	20		ug/kg	50	106-93-4	
Chlorobenzene	Not detected	50		ug/kg	50	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	50	630-20-6	
Ethylbenzene	Not detected	50		ug/kg	50	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	50		
o-Xylene	Not detected	50		ug/kg	50	95-47-6	
Styrene	Not detected	50		ug/kg	50	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	50	98-82-8	
Bromoform	Not detected	100		ug/kg	50	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	50		ug/kg	50	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	50	96-18-4	
n-Propylbenzene	Not detected	50		ug/kg	50	103-65-1	
Bromobenzene	Not detected	100		ug/kg	50	108-86-1	
1,3,5-Trimethylbenzene	Not detected	50		ug/kg	50	108-67-8	
tert-Butylbenzene	Not detected	50		ug/kg	50	98-06-6	
1,2,4-Trimethylbenzene	Not detected	50		ug/kg	50	95-63-6	
sec-Butylbenzene	Not detected	50		ug/kg	50	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	50	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	50	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	50	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	50	95-50-1	
1,2,3-Trimethylbenzene	Not detected	50		ug/kg	50	526-73-8	
n-Butylbenzene	Not detected	50		ug/kg	50	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	50	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	50	96-12-8	
1,2,4-Trichlorobenzene	Not detected	330		ug/kg	50	120-82-1	
1,2,3-Trichlorobenzene	Not detected	330		ug/kg	50	87-61-6	
Naphthalene	Not detected	300		ug/kg	50	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	50	91-57-6	

M-Result reported to MDL not RDL

Merit Laboratories Login Checklist

Lab Set ID:S74503

Client:ASTI (ASTI Environmental)

Project: A24-1988.01 2755 and 2990 Tooley Rd. and 0 Bowen Rd

Submitted:05/14/2025 11:10 Login User: MMC

Attention: Jeremy Efros

Address: ASTI Environmental
10448 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 810-360-9310

FAX:

Email:jefros@asti-env.com

Selection	Description	Note
Sample Receiving		
01.	☒ Yes ☐ No ☐ N/A	Samples are received at 4C +/- 2C Thermometer # IR 4.6
02.	☒ Yes ☐ No ☐ N/A	Received on ice/ cooling process begun
03.	☐ Yes ☒ No ☐ N/A	Samples shipped
04.	☐ Yes ☒ No ☐ N/A	Samples left in 24 hr. drop box
05.	☐ Yes ☐ No ☒ N/A	Are there custody seals/tape or is the drop box locked
Chain of Custody		
06.	☒ Yes ☐ No ☐ N/A	COC adequately filled out
07.	☒ Yes ☐ No ☐ N/A	COC signed and relinquished to the lab
08.	☒ Yes ☐ No ☐ N/A	Sample tag on bottles match COC
09.	☐ Yes ☒ No ☐ N/A	Subcontracting needed? Subcontacted to:
Preservation		
10.	☒ Yes ☐ No ☐ N/A	Do sample have correct chemical preservation
11.	☐ Yes ☐ No ☒ N/A	Completed pH checks on preserved samples? (no VOAs)
12.	☐ Yes ☒ No ☐ N/A	Did any samples need to be preserved in the lab?
Bottle Conditions		
13.	☒ Yes ☐ No ☐ N/A	All bottles intact
14.	☒ Yes ☐ No ☐ N/A	Appropriate analytical bottles are used
15.	☒ Yes ☐ No ☐ N/A	Merit bottles used
16.	☒ Yes ☐ No ☐ N/A	Sufficient sample volume received
17.	☐ Yes ☒ No ☐ N/A	Samples require laboratory filtration
18.	☒ Yes ☐ No ☐ N/A	Samples submitted within holding time
19.	☐ Yes ☐ No ☒ N/A	Do water VOC, TOX, DO or Alkalinity bottles contain

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____



2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

178257

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME	Jeremy Efron / Brady Metzger		
COMPANY	ASTI Environmental		
ADDRESS	10448 Citation Dr		
CITY	STATE	ZIP CODE	
Brighton	MI	48116	
PHONE NO.	CELL NO.	P.O. NO.	QUOTE NO.
810-360-9310	810-599-5464		
E-MAIL ADDRESS	efron@asti-env.com bmetzger@asti-env.com		

CONTACT NAME	X SAME		
COMPANY			
ADDRESS			
CITY	STATE	ZIP CODE	
PHONE NO.	E-MAIL ADDRESS		

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME	SAMPLER(S) - PLEASE PRINT/SIGN NAME
24-1988.01 2755 and 2990 Tooley Rd. and O Bowen Rd	Brady Metzger
TURNAROUND TIME REQUIRED	☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER
DELIVERABLES REQUIRED	☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIFE A=AIR WS=WASTE

Containers & Preservatives

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	PNA's	arsenic	Cadmium	lead	mercury	selenium	VOC's	MI 10 metals	Certifications ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES Project Locations ☐ Detroit ☐ New York ☐ Other Special Instructions
	DATE	TIME																			
74503.01	5/12/25	1520	DU-1 (0-1')	S	1	1							X	X	X	X	X	X			*ISM
.02	5/13/25	1330	DU-2 (0-1')		1	1															*May need to be run for f/c lead, hex chro
.03	5/12/25	1140	DU-3 (0-1')		1	1															
.04		-	T-1																		
.05		-	T-2																		
.06	5/13/25	1030	Trench - 1		2														X	X	
.07		1040	Trench - 2		1																
.08		-	methanol Blank		1																

RELINQUISHED BY:	SIGNATURE/ORGANIZATION	DATE	TIME
	Brady Metzger	5/13/25	1435
RECEIVED BY:	SIGNATURE/ORGANIZATION	DATE	TIME
	ASTI Cold Storage	5/13/25	1435
RELINQUISHED BY:	SIGNATURE/ORGANIZATION	DATE	TIME
	ASTI Cold Storage	5/14/25	728
RECEIVED BY:	SIGNATURE/ORGANIZATION	DATE	TIME
	Brady Metzger	5/14/25	728

RELINQUISHED BY:	SIGNATURE/ORGANIZATION	DATE	TIME
	R/S	5/14/25	1110
RECEIVED BY:	SIGNATURE/ORGANIZATION	DATE	TIME
	M Chilcote	5/14/25	1110
SEAL NO.	SEAL INTACT	INITIALS	NOTES:
	YES ☐ NO ☐		TEMP. ON ARRIVAL
SEAL NO.	SEAL INTACT	INITIALS	
	YES ☐ NO ☐		4.6

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Attachment B
Soil Boring Logs



Boring ID:

SB-1

Site Address:

2755 Tooley Rd

Howell Township, MI, 48855

Size:

N/A

Client: Jonathan Hohenstein

Driller:

Metiri Group

Type:

N/A

Project Name: 2755 Tooley Road

Drilling Method:

Direct Push

Screen Length:

N/A

Project Number: A24-1988.01

ASTI Geologist:

BTM

Well Depth:

N/A

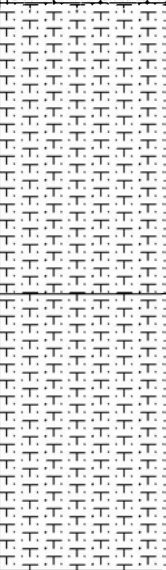
Date Completed: 5/8/2025

Total Depth:

20 feet bgs

Depth to GW:

N/A

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: trace organics, dark brown, moist, medium dense (sandy loam)	0		100
1		CLAYEY very fine to very coarse SAND: trace 0.75" gravel, brown, moist, loose (sandy clay loam)	0		
2					
3					
4					
5					
6			0	Soil at 4-4.5'	
7		0			
8		0		100	
9	SILTY fine to coarse SAND: trace 1" gravel, gray, moist, loose (sandy loam)	0			
10	SILTY fine to coarse SAND: trace 0.75" gravel, brown, moist, loose (sandy loam)	0			
11	SILTY fine to coarse SAND: brown, dry, very dense (sandy loam)	0			
12		0			
13		0			
14		0	Soil at 14-15'		
15	SILTY fine to coarse SAND: brown, moist, loose (sandy loam)	0			
16			0		70
17			0		
18			0		
19			0		
20			0		
		END OF BORING			

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-2

Site Address:

2755 Tooley Rd

Howell Township, MI, 48855

Size:

N/A

Client: Jonathan Hohenstein

Driller:

Metiri Group

Type:

N/A

Project Name: 2755 Tooley Road

Drilling Method:

Direct Push

Screen Length:

N/A

Project Number: A24-1988.01

ASTI Geologist:

BTM

Well Depth:

N/A

Date Completed: 5/8/2025

Total Depth:

20 feet bgs

Depth to GW:

N/A

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: trace organics and gravel, dark brown, moist, medium dense (sandy loam)	0		
1					
2		SILTY CLAY: trace to some fine-grained sand, trace gravel, brown, soft (silty clay)		Soil at 2-2.5'	75
3			0		
4					
5			0		
6					
7			0		100
8					
9		SILTY CLAY: trace fine-grained sand, brown, medium stiff(silty clay)	0		
10					
11			0		
12					
13		CLAYEY very fine to very coarse SAND: brown, moist, dense (sandy clay loam)	0	Soil at 13-14'	100
14		SILTY CLAY: gray, stiff(silty clay)			
15			0		
16					
17			0		100
18					
19			0		
20		END OF BORING			

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-3

Site Address: 2755 Tooley Rd
 Howell Township, MI, 48855
 Size: N/A
 Driller: Metiri Group
 Type: N/A
 Project Name: 2755 Tooley Road
 Drilling Method: Direct Push
 Screen Length: N/A
 Project Number: A24-1988.01
 ASTI Geologist: BTM
 Well Depth: N/A
 Date Completed: 5/8/2025
 Total Depth: 10 feet bgs
 Depth to GW: 4 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: trace organics, black to dark brown, moist, dense (sandy loam)	0		100
1		SILTY CLAY: trace coarse-grained sand and gravel, brown, soft(silty clay)			
2					
3			0	Soil at 3.5-4'	
4		CLAYEY very fine to very coarse SAND: brown, wet, loose (sandy loam)	0		100
5					
6					
7			0		
8					
9			0		
10		END OF BORING			100
Comments:					

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-4

Site Address: 2755 Tooley Rd
 Howell Township, MI, 48855
 Driller: Metiri Group
 Drilling Method: Direct Push
 ASTI Geologist: BTM
 Total Depth: 10 feet bgs

Size: 1-inch
 Type: PVC
 Screen Length: 5'
 Well Depth: 10 feet bgs
 Depth to GW: 4 feet bgs

Client: Jonathan Hohenstein
 Project Name: 2755 Tooley Road
 Project Number: A24-1988.01
 Date Completed: 5/8/2025

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: trace organics, black to dark brown, moist, dense, fill (sandy loam)			
1		SILTY CLAY: trace coarse-grained sand, gravel, and brick, brown, soft, fill (silty clay)	0		
2					
3			0		
4				Soil at 3.5-4'	
5		CLAYEY very fine to very coarse SAND: brown, wet, loose (sandy loam)	0		
6					
7			0		
8					
9			0		
10		END OF BORING			100

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-5

Site Address:

2755 Tooley Rd

Howell Township, MI, 48855

Size:

N/A

Client: Jonathan Hohenstein

Driller:

Metiri Group

Type:

N/A

Project Name: 2755 Tooley Road

Drilling Method:

Direct Push

Screen Length:

N/A

Project Number: A24-1988.01

ASTI Geologist:

BTM

Well Depth:

N/A

Date Completed: 5/8/2025

Total Depth:

15 feet bgs

Depth to GW:

N/A

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SANDY SILT: trace organics, brown, moist, medium dense, fill (sandy loam)			
1		SILTY fine SAND: trace metal, brick, and gravel, brown, moist, loose, fill (sandy loam)	0		
2					
3		CLAYEY fine to coarse SAND: trace brick, brown, moist, dense, fill (sandy clay loam)	0		
4		SILTY fine to coarse SAND: trace gravel, brick, metal, brown, moist, medium dense, fill (sandy loam)			
5			0	Soil at 4-5'	
6		SILTY very fine to very coarse SAND: brown, moist, very dense (sandy loam)			
7			0		
8					
9			0		
10					
11			0		
12					
13					
14		SILTY coarse SAND: trace gravel, gray, wet, loose (sandy loam)	0		
15					
		END OF BORING			

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-6

Site Address:

2755 Tooley Rd

Howell Township, MI, 48855

Size:

1-inch

Client: Jonathan Hohenstein

Driller:

Metiri Group

Type:

PVC

Project Name: 2755 Tooley Road

Drilling Method:

Direct Push

Screen Length:

5'

Project Number: A24-1988.01

ASTI Geologist:

BTM

Well Depth:

20 feet bgs

Date Completed: 5/8/2025

Total Depth:

20 feet bgs

Depth to GW:

18 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		SILTY CLAY: trace gravel, brown, medium soft (silty clay)			100
1			0		
2					
3			0		
4					
5			0		
6		SILTY CLAY: trace gravel, brown, soft (silty clay)			100
7			0		
8					
9			0		
10					
11		SILTY fine to coarse SAND: trace gravel, brown, moist, dense (sandy loam)			80
12			0		
13					
14			0		
15					
16			0		
17					
18		SILTY fine to coarse SAND: trace gravel, brown, wet, dense (sandy loam)			80
19			0		
20		END OF BORING			

Comments:

insufficient amount of water to sample

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

MW-7

Site Address:

2755 Tooley Rd

Howell Township, MI, 48855

Size:

1-inch

Client: Jonathan Hohenstein

Driller:

Metiri Group

Type:

PVC

Project Name: 2755 Tooley Road

Drilling Method:

Direct Push

Screen Length:

5'

Project Number: A24-1988.01

ASTI Geologist:

BTM

Well Depth:

20 feet bgs

Date Completed: 5/8/2025

Total Depth:

20 feet bgs

Depth to GW:

17.5 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery		
0		SILTY CLAY: trace gravel, brown, medium soft(silty clay)			80		
1			0				
2			0				
3							
4							
5			0				
6			0				
7							
8							
8		SILTY CLAY: trace gravel, brown, soft(silty clay)			80		
9			0				
10			0				
11							
12							
13				SILTY fine to coarse SAND: trace gravel, brown, moist, dense (sandy loam)		0	80
14						0	
15							
16							
17		SILTY fine to coarse SAND: trace gravel, brown, wet, dense (sandy loam)			0	80	
18					0		
19							
20			END OF BORING				

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

MW-8

Site Address:

0 & 2990 Tooley Rd

Howell Township, MI, 48855

Size:

1-inch

Client: Jonathan Hohenstein

Driller:

Metiri Group

Type:

PVC

Project Name: 0 & 2990 Tooley Rd

Drilling Method:

Direct Push

Screen Length:

5'

Project Number: A24-1988.01

ASTI Geologist:

BTM

Well Depth:

5 feet bgs

Date Completed: 5/8/2025

Total Depth:

5 feet bgs

Depth to GW:

1 foot bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine SAND: trace organics, black to dark brown, moist, dense (sandy loam)			
1		SILTY fine to coarse SAND: trace organics and gravel, brown, wet, loose (sandy loam)	0		
2					
3			0		
4					
5		END OF BORING	0		
Comments:					

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

MW-9

Site Address: 0 & 2990 Tooley Rd
 Howell Township, MI, 48855
 Size: 1-inch
 Driller: Metiri Group
 Type: PVC
 Drilling Method: Direct Push
 Screen Length: 5'
 ASTI Geologist: BTM
 Well Depth: 10 feet bgs
 Date Completed: 5/8/2025
 Total Depth: 10 feet bgs
 Depth to GW: 5 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: brown, dry, loose(sandy loam)	0		100
1		SILTY fine SAND: trace gravel, brown, moist, loose (sandy loam)			
2		SILTY CLAY: trace fine-grained sand, brown, medium soft(silty clay)	0		
3		CLAYEY very fine to medium SAND: brown, wet, medium dense (sandy loam)	0		
4			0		100
5			0		
6			0		
7			0		
8			0		
9			0		
10	END OF BORING				

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

MW-10

Site Address:

2755 Tooley Rd

Howell Township, MI, 48855

Size:

1-inch

Client: Jonathan Hohenstein

Driller:

Metiri Group

Type:

PVC

Project Name: 2755 Tooley Road

Drilling Method:

Direct Push

Screen Length:

5'

Project Number: A24-1988.01

ASTI Geologist:

BTM

Well Depth:

10 feet bgs

Date Completed: 5/8/2025

Total Depth:

10 feet bgs

Depth to GW:

7 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: brown, dry, loose(sandy loam)	0		100
1		SILTY fine SAND: trace gravel, brown, moist, loose (sandy loam)			
2					
3			0		
4					
5			0		
6					
7		SILTY fine SAND: trace gravel, brown, wet, loose (sandy loam)	0		100
8					
9			0		
10		END OF BORING			
Comments:					

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-11

Site Address:

0 & 2990 Tooley Rd

Howell Township, MI, 48855

Size:

N/A

Client: Jonathan Hohenstein

Driller:

Metiri Group

Type:

N/A

Project Name: 0 & 2990 Tooley Rd

Drilling Method:

Hand Auger

Screen Length:

N/A

Project Number: A24-1988.01

ASTI Geologist:

BTM

Well Depth:

N/A

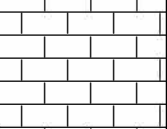
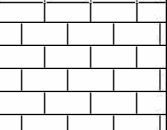
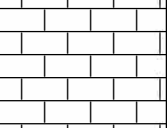
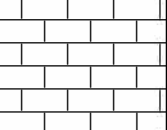
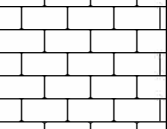
Date Completed: 5/8/2025

Total Depth:

4 feet bgs

Depth to GW:

N/A

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY very fine to coarse SAND: black, moist, loose, fill (sandy loam)	0		100
-1		SILTY fine to very coarse SAND: trace to some brick, metal, and ceramic, brown, moist, loose, fill (sandy loam)			
-2			0	Soil at 2.5-3'	
-3					
-4					
		END OF BORING			

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-12

Site Address:

0 & 2990 Tooley Rd

Howell Township, MI, 48855

Size:

N/A

Client: Jonathan Hohenstein

Driller:

Metiri Group

Type:

N/A

Project Name: 0 & 2990 Tooley Rd

Drilling Method:

Hand Auger

Screen Length:

N/A

Project Number: A24-1988.01

ASTI Geologist:

BTM

Well Depth:

N/A

Date Completed: 5/8/2025

Total Depth:

4 feet bgs

Depth to GW:

N/A

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: black, moist, loose (sandy loam)	0		100
1		SILTY fine SAND: brown, moist, medium dense (sandy loam)		Soil at 1-2'	
2			0		
3		SILTY fine to coarse SAND: brown, moist, medium dense (sandy loam)		Soil at 3-3.5'	
4			END OF BORING		
Comments:					

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture

**Boring ID:****SB-13****Site Address:**

0 & 2990 Tooley Rd

Howell Township, MI, 48855

Size:

N/A

Client: Jonathan Hohenstein**Driller:**

Metiri Group

Type:

N/A

Project Name: 0 & 2990 Tooley Rd**Drilling Method:**

Hand Auger

Screen Length:

N/A

Project Number: A24-1988.01**ASTI Geologist:**

BTM

Well Depth:

N/A

Date Completed: 5/8/2025**Total Depth:**

3 feet bgs

Depth to GW:

N/A

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: trace organics, black, moist, loose (sandy loam)	0		100
		SILTY fine to coarse SAND: light brown, moist, loose (sandy loam)			
1			0		
2			0		
3		END OF BORING		Soil at 2.5-3'	
Comments:					

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-14

Site Address:

0 & 2990 Tooley Rd

Howell Township, MI, 48855

Size:

1-inch

Client: Jonathan Hohenstein

Driller:

Metiri Group

Type:

PVC

Project Name: 0 & 2990 Tooley Rd

Drilling Method:

Direct Push

Screen Length:

5'

Project Number: A24-1988.01

ASTI Geologist:

BTM

Well Depth:

10 feet bgs

Date Completed: 5/8/2025

Total Depth:

10 feet bgs

Depth to GW:

4.5 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: trace organics, black, moist, loose (sandy loam)	0		65
1		SILTY fine SAND: brown, moist, medium dense (sandy loam)			
2			0		
3					
4				Soil at 3.5-4'	100
5		SILTY fine to coarse SAND: brown, wet, loose (sandy loam)	0		
6			0		
7					
8			0		
9					
10		END OF BORING			
Comments:					

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

MW-14

Site Address:

2755 Tooley Rd

Howell Township, MI, 48855

Size:

1-inch

Client: Jonathan Hohenstein

Driller:

Metiri Group

Type:

PVC

Project Name: 2755 Tooley Road

Drilling Method:

Direct Push

Screen Length:

5'

Project Number: A24-1988.01

ASTI Geologist:

BTM

Well Depth:

20 feet bgs

Date Completed: 5/8/2025

Total Depth:

20 feet bgs

Depth to GW:

19 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		SILTY very fine to medium SAND: trace gravel, brown, dry (silty clay)	0		100
1			0		
2		SILTY CLAY: trace gravel, brown, medium soft(silty clay)	0		
3			0		
4			0		
5			0		100
6			0		
7			0		
8			0		
9			0		
10		SILTY fine to coarse SAND: trace clay and gravel, brown, moist, dense (sandy loam)	0		75
11			0		
12			0		
13			0		
14			0		
15			0		75
16			0		
17			0		
18			0		
19		SILTY medium to coarse SAND: trace gravel, brown, wet at 19', dense (sandy loam)	0		
20		END OF BORING			

Comments:

insufficient amount of water to sample

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

MW-15

Site Address:

0 Bowen Road

Howell Township, MI, 48855

Size:

1-inch

Client: Jonathan Hohenstein

Driller:

Metiri Group

Type:

PVC

Project Name: 0 Bowen Road

Drilling Method:

Direct Push

Screen Length:

5'

Project Number: A24-1988.01

ASTI Geologist:

BTM

Well Depth:

15 feet bgs

Date Completed: 5/8/2025

Total Depth:

15 feet bgs

Depth to GW:

12 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: trace organics, black, moist, loose (sandy loam)	0		100
1			0		
2		SANDY CLAY: brown, moist, medium dense (sandy loam)	0		100
3			0		
4			0		
5			0		
6			0		
7			0		
8			0		
9			0		
10		SILTY fine to very coarse SAND: trace gravel, brown, wet, dense (sandy loam)	0		75
11			0		
12		SILTY coarse SAND: trace gravel, brown, wet, dense (sandy loam)	0		75
13			0		
14			0		
15		END OF BORING	0		

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture

Attachment C

Contaminated Soil and Groundwater Notification Form

CONTAMINATED SOIL AND GROUNDWATER NOTIFICATION FORM

DATE: _____

To Whom It May Concern

Subsurface investigations conducted at 0 and 2755 Tooley Road in Howell Township, Michigan (Subject Property) have identified the metal arsenic in soil and the per- and polyfluoroalkyl substance (PFAS) perfluorobutane sulfonic acid in groundwater at concentrations exceeding the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Part 201 Generic Residential Cleanup Criteria (GRCC). However, these concentrations do not pose a long-term threat to utility workers or landscape personnel, whose exposure would be of short duration in comparison to the assumptions used to calculate the exposure risk.

Soil analytical results that exceed the GRCC are depicted on Figure 3. Groundwater analytical results that exceed the GRCC are depicted on Figure 4. The Due Care Plan requires that any future site work and/or construction plans be reviewed by an environmental professional to ensure that all reasonable precautions are taken to avoid exposure and/or exacerbation of existing site conditions. Unless tested, all soil and groundwater on the Subject Property should be considered to be impacted, and proper handling procedures shall be followed. Any soil or groundwater removed from the Subject Property should be characterized for disposal at a municipal Type II Landfill or other approved disposal facility.

To prevent exacerbation of soil and groundwater impacts, ASTI recommends the following:

- Soils removed from the ground that are not directly loaded into soil handling trucks for offsite disposal should be stockpiled on a minimum of 10 mil plastic sheeting and be covered with plastic sheeting until removal from the Subject Property.
- Soil generated on the Subject Property as excavation spoils may be reused on the Subject Property but should be returned to the same location and depth from which it was removed.
- Soils and groundwater should not be moved to other locations on the Subject Property without first confirming that they are not impacted by conducting sampling and laboratory analysis.

After use, all equipment that has encounters site soils or groundwater, including but not limited to hand tools, boots, and power tools, should be decontaminated. Gloves and other disposable items shall be disposed of with the general site refuse. It's recommended that on-site personnel wash their hands following contact with soil or groundwater on the Subject Property.

Contaminated soil has been identified from 4 to 5 feet below ground surface (bgs) at the location specified on Figure 3 and may be at varying depths in areas not sampled. Groundwater was encountered at varying depths from 1-foot bgs to 18 feet bgs with the depth to groundwater increasing to the west.

Any soil or groundwater removed from the Subject Property must be properly characterized for disposal at a licensed facility, which must be documented. Copies of all disposal manifests must be provided to the Subject Property owner.

Attachments:

Figure 3 – Soil Analytical Results Exceeding GRCC Map (2007 and 2008)

Figure 4 – Groundwater Analytical Results Exceeding GRCC Map (2007 and 2008)

Please sign below to acknowledge your notification of site impacts and to assure your compliance with the above conditions.

My Signature in Acknowledgement of the Above

Printed Name

Employer Name, Address, and Phone Number

ASTI ENVIRONMENTAL
ENVIRONMENTAL INVESTIGATION, REMEDIATION, COMPLIANCE AND
RESTORATION PROJECTS THROUGHOUT THE GREAT LAKES SINCE 1985.

OUR SERVICES INCLUDE:

- **ASBESTOS, LEAD, MOLD, AND RADON ASSESSMENTS**
- **BROWNFIELD/GREYFIELD REDEVELOPMENT ASSISTANCE**
- **DEVELOPMENT INCENTIVES AND GRANT MANAGEMENT**
- **ECOLOGICAL ASSESSMENTS AND RESTORATION**
- **ENVIRONMENTAL ASSESSMENTS AND IMPACT STATEMENTS**
- **ENVIRONMENTAL OPPORTUNITIES ASSESSMENT**
- **GIS MAPPING**
- **HAZARD MITIGATION PLANNING**
- **MINING AND RECLAMATION ASSISTANCE**
- **REMEDIATION IMPLEMENTATION, OPERATION AND MAINTENANCE**
- **PHASE I ESA AND ENVIRONMENTAL DUE DILIGENCE ASSESSMENTS**
- **REGULATORY COMPLIANCE AND PERMITTING**
- **SOIL AND GROUNDWATER ASSESSMENTS**
- **SOIL AND GROUNDWATER REMEDIATION**
- **STORAGE TANK COMPLIANCE AND CLOSURE**
- **THREATENED AND ENDANGERED SPECIES SURVEYS**
- **WATERSHED AND STORMWATER MANAGEMENT PROGRAMS**
- **WETLAND DELINEATION, PERMITTING, MITIGATION AND BANKING**